

INITIAL STATEMENT OF REASONS

**Coho Salmon
Incidental Take Assistance, 2007**

[Published May 11, 2007]

Title 14 of the California Code of Regulations (14 CCR):

Amend:

§ 895.1	Definitions
§§ 916.9, 936.9 and 956.9	Protection and Restoration in Watersheds with Threatened or Impaired Values
§§ 923.9, 943.9, and 963.9	Roads and Landings in Watersheds with Threatened or Impaired Values

Adopt:

<u>§§ 916.9.1 and 936.9.1</u>	<u>Minimization and Mitigation Measures for Protection and Restoration in Watersheds with Coho Salmon</u>
<u>§§ 916.9.2 and 936.9.2</u>	<u>Additional Measures to Facilitate Incidental Take Authorization in Watersheds with Coho Salmon</u>
<u>§§ 916.11.1 and 936.11.1</u>	<u>Monitoring for Adaptive Management in Watersheds with Coho Salmon</u>
<u>§§ 923.9.1 and 943.9.1</u>	<u>Minimization and Mitigation Measures for Roads and Landings in Watersheds with Coho Salmon</u>
<u>§§ 923.9.2 and 943.9.2</u>	<u>Additional Measures to Facilitate Incidental Take Authorization in Watersheds with Coho Salmon</u>

**PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER
CONDITION OR CIRCUMSTANCE THESE REGULATIONS ARE INTENDED
TO ADDRESS**

In 1994, the California Department of Fish and Game (DFG) petitioned the Board of Forestry and Fire Protection (Board) to list coho salmon (*Oncorhynchus kisutch*) as a sensitive species under the Board's rules (ref. 14 CCR § 919.12 and 939.12). In their petition, DFG recommended 1) that watershed assessments be conducted in key streams or reaches to determine the present condition of critical habitat elements, 2) that the timber harvesting plan (THP) process includes appropriate consultation, and 3) that site-specific protection measures be developed for the protection of coho salmon habitat. The Board chose not to list coho salmon as sensitive at that time, but proceeded with a study of the effectiveness of the rules for protecting water quality utilizing an interagency,

qualitative approach. The 1995 final report indicated that, when considered as a whole, the Board's rules were generally effective in protecting water quality, but identified issues related to winter period operations, Class III watercourse protection, and the restorable uses of water for fisheries (Final Report on the Implementation and Effectiveness of the Watercourse and Lake Protection Rules, 1995).

In 1996, the State Fish and Game Commission listed coho salmon south of San Francisco Bay as endangered under the California Endangered Species Act (CESA). Then in 1997, the National Marine Fisheries Service (NMFS) listed coho salmon as threatened throughout its range in California under the Federal Endangered Species Act (ESA).

A comprehensive review of the California Forest Practice Rules (FPRs), with regard to their adequacy for the protection of salmonid species, was prepared for the Board (Report of the Scientific Review Panel [SRP report], 1999). Following an extensive review of the regulations, "The SRP concluded the FPRs, including their implementation (the 'THP process') do not ensure protection of anadromous salmonid populations" (Report of the Scientific Review Panel, 1999).

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

[Table 1. State and Federal Listings of Coho Salmon \(*Oncorhynchus kisutch*\)](#)

Species	Status	Effective Date
Statutory Act- geographic range		
Coho Salmon		
CESA- south of San Francisco	endangered	12/31/1995
CESA- San Francisco to Punta Gorda	endangered	3/30/2005
CESA- Punta Gorda to Oregon border	threatened	3/30/2005
ESA- Central California Coastal	endangered (threatened)	8/29/2005 (12/2/1996)
ESA- Southern Oregon~Northern California coasts	threatened	6/5/1997

The Board recognized the substantial concerns raised by other agencies additionally charged with the protection of the State's valuable anadromous salmonid resources. The Board is also extremely aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping permitting processes. Considering these factors, the Board adopted changes to the FPRs under a previous rulemaking package (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). These rules were adopted to enhance protection of anadromous salmonids and their habitat. Specific objectives of these rules include protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. These regulations for the protection of anadromous salmonids will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG's coho salmon recovery strategy, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. As such, DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG's proposed procedural regulations rely in part upon the Board's proposed regulations that are the subject of this Initial Statement of Reasons. The proposed Board regulations set forth certain definitions and substantive measures in the FPRs that enable DFG to establish certain incidental take permitting procedures that meet the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits, including a certification process for providing incidental take permits under CESA for timber operations and activities that may result in take of coho salmon. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the Forest Practice Act (FPA) and the FPRs. Without such an integrated approach, in addition to applying to the Department of Forestry and Fire Protection (CAL FIRE) for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would involve separate environmental review processes and related costs to both the permit applicant and DFG.

14 CCR § 895.1 **Definitions**

**PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER
CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO
ADDRESS**

The FPRs commonly utilize technical terms in the regulation text that are generally recognized by federal and state agencies, as well as the forest products industry representatives. The appropriate application of these terms in regulation is often reliant on an established definition. The Board has provided through regulation a listing of common terms and definitions. As previously noted, the Board and DFG have developed the Board's proposed substantive regulations for inclusion in the FPRs that would enable DFG to establish a certification process for providing incidental take permits under CESA for timber operations and activities that may result in take of coho salmon that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits. The Board's proposed substantive regulations and DFG's proposed procedural regulations rely upon the Board's existing definitions; however, many of the Board's existing definitions established in relation to the protection of anadromous salmonids will expire on December 31, 2007 absent further Board action. Furthermore, DFG and the Board recognized several existing terms used in the FPRs related to the protection of salmonids and in particular, coho salmon, lacked an established definition. The Board and DFG also identified additional terms included in this proposal that lack an established definition. Of the fourteen (14) definitions proposed for addition or as amendments to the FPRs; nine (9) are not currently listed in the FPRs and only pertain to the new language proposed for adoption to meet the issuance criteria for incidental take permits for coho salmon for timber operations and activities, three (3) are terms in current use in the FPRs, but lack an established definition, and two (2) are existing definitions that are being revised for clarity and consistent application.

SPECIFIC PURPOSE OF THE REGULATION

The proposed deletion of the language under 14 CCR § 895.1, specific to the previously established expiration date, is intended to ensure the existing definitions pertaining to the protection of anadromous salmonids will remain in effect allowing DFG to rely on these definitions for the appropriate application of the rules to meet the issuance criteria for incidental take permits for coho salmon for timber operations and activities.

The proposed additions and changes to the definitions are intended to ensure that the affected public and the reviewing agencies understand the technical terms that are utilized in the proposed changes to the regulations and those that are currently included in the FPRs. This is additionally intended to allow for brevity in the rule language and subsequently to increase the clarity and enforceability of proposed and existing regulations.

- The proposed definition of the term *Watersheds with Coho Salmon* is intended to provide a common, enforceable definition of a term which is being utilized in the proposed rule changes. This new definition is intended to give special recognition to those watersheds where populations of coho salmon, which are listed as threatened or endangered under the State Endangered Species Act, are currently present or have been documented to exist. This is also intended to provide a definition that is consistent with the definition proposed under the Fish and Game Code § 787.1(4).
- The proposed definition of the term *Connected Headwall Swale* is intended to clearly describe a geomorphic feature for field identification for consistent application of the FPRs. This term is not currently used in the FPRs and as proposed, only applies to watersheds with coho salmon under 14 CCR § 916.9.2(d) and 936.9.2(d).
- The proposed definition of the term *Hydrologic Disconnection* is intended to make specific one of the primary purposes of road decommissioning. This term is not currently used in the FPRs and as proposed, only applies to watersheds with coho salmon under 14 CCR § 895.1.
- The proposed definition of the term *Inside Ditch Hydraulic Capacity* is intended to provide a consistent and enforceable description of the amount of water a drainage ditch can carry without overflowing onto a road. This term is not currently used in the Forest Practice Rules (FPRs) and as proposed, only applies to watersheds with coho salmon under 14 CCR § 923.9.2(o) and 943.9.2(o).
- The proposed definition of the term *Road Decommissioning* is intended to provide a clear and enforceable description related to the abandonment of a road. This term is not currently used in the FPRs and as proposed, only applies to watersheds with coho salmon under 14 CCR § 895.1.
- The proposed definition of the term *Road Maintenance* is intended to be utilized to interpret and implement existing rules pertaining to the maintenance of a road's surface and associated drainage, which is critical to protection of coho salmon habitat. This term is used throughout the existing FPRs; however, there has never been an established definition. The term is used under 14 CCR §§ 895.1, 916.9(k)(2), 936.9(k)(2), 956.9(k)(2), 916.9(l)(2), 936.9(l)(2), 956.9(l)(2), 921.5(c), 961.5(f), 923.4, 943.4, 963.4, and 927.11(b).
- The proposed definition of the term *Road Prism* is intended to provide a clear description of the parts of a road for consistent application of the FPRs. While this term is currently used in various regulations under the FPRs, there has never been an established definition. The new definition will have bearing on new and existing rule language. The term is used under 14 CCR §§ 926.8, 923.9.2(j)(2), 943.9.2(j)(2), and 1037.10.

- The proposed definition of the term *Scour* is intended to provide clarity, enforceability, and consistent application of the proposed regulations, as well as the existing FPRs. While this term is currently used in various regulations under the FPRs, there has never been an established definition linking the term to the erosional processes caused by flowing water. The term is used under 14 CCR §§ 916.8, 936.8, 956.8, 923.9.2(d)(5)(E), 943.9.2(d)(5)(E), 923.9.2(l), 943.9.2(l), and Technical Rule Addendum No. 2.
- The proposed definition of the term *Sediment Filter Strip* is intended to ensure the consistent and appropriate application of methods to prevent sediment transport into water. This term is not currently used in the FPRs and as proposed, only applies to watersheds with coho salmon under 14 CCR § 923.9.2(d)(2) and 943.9.2(d)(2).
- The proposed changes to the definition of the term *Stable Operating Surface* are intended to address agency concerns for proper road maintenance, and the timing of road use, construction, and reconstruction to ensure the consistent and appropriate application of methods to prevent sediment transport into water from the surface of the road or as a result of mass wasting. The term is used in the existing rules for the protection of anadromous salmonids under 14 CCR §§ 923.9, 943.9, and 963.9, subsections (g)(2) and in the proposed language under 14 CCR § 923.9.2 and 943.9.2, subsections (d)(5), (f), (h), (i)(1) and (2), and (m).
- The proposed definitions of the terms *Watercourse Sideslope* and *Watercourse Sideslope Class* are substantively the same as language existing in the current FPRs under 14 CCR §§ 916.4, 936.4, and 956.4. Establishing these definitions under 14 CCR § 895.1 is intended to provide clarity and consistency with the existing regulatory framework; however, as proposed, this term only applies to watersheds with coho salmon under 14 CCR § 916.9.2 and 936.9.2, subsections (b)(2) and (3), and subsections (C) and (D).

NECESSITY

The proposed additions and changes to the definitions are necessary because the current and proposed FPRs include technical terms without an adequate description of the term. The existing regulations fail to provide a common, enforceable definition of some terms currently being utilized or those proposed to be adopted. An established definition of these technical terms to be included under 14 CCR 895.1 is necessary to ensure the appropriate application of these terms and to ensure that all affected persons can readily access the meaning of the terms when necessary to understand and enforce the regulations.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD'S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not delete the provision specific to the previously established expiration date.

This alternative would not address the public problem this regulation is intended to address. Should these definitions be allowed to expire, the Department of Fish and Game (DFG) could not rely on them for appropriate application of the FPRs necessary to enable DFG to establish certain procedures for providing incidental take permits, namely a certification process, for timber operations and activities that may result in take of coho salmon that meet the issuance criteria for incidental take permits under the California Endangered Species Act (CESA). This would require DFG to adopt separate regulations under their authority to reestablish these definitions. This would result in additional cost to landowners proposing timber harvesting within the geographic range of coho salmon to engage in a lengthy, separate permitting process with DFG under CESA, involving a separate environmental review process under the California Environmental Quality Act (CEQA). It would also result in additional cost to State agencies responsible for the protection of the species for additional rulemaking and associated additional environmental review under CEQA.

2. Adopt a provision under this section of the rules that specifies an alternative expiration date.

This alternative would not address the public problem this regulation is intended to address. Should these definitions be allowed to expire in the future at any alternatively specified date, DFG could not rely on them for appropriate application of the FPRs necessary to enable DFG to establish certain procedures for providing incidental take permits, namely a certification process, for timber operations and activities that may result in take of coho salmon that meet the issuance criteria for incidental take permits under CESA. This would require DFG to adopt separate regulations under their authority to reestablish these definitions either now or in the future should the Board choose to allow them to expire. This would result in confusion and additional cost to landowners proposing timber harvesting within the geographic range of coho salmon. Landowners would not know at the time of plan preparation whether or not the Board's rules would suffice to meet the issuance criteria for incidental take permits and may have to engage in a lengthy, separate permitting process with DFG under CESA, involving a separate environmental review process under the California Environmental Quality Act (CEQA). It would also result in additional cost to State agencies responsible for the protection of the species for additional rulemaking and associated additional environmental review under CEQA.

3. Do not adopt the proposed definitions or changes to the current definitions under 14 CCR § 895.1 presented in this rulemaking proposal.

This alternative would not address the public problem this regulation is intended to address. Should these definitions not be adopted, DFG could not rely on them for appropriate application of the FPRs necessary to enable DFG to establish certain procedures for providing incidental take permits, namely a certification process, for timber operations and activities that may result in take of coho

salmon that meet the issuance criteria for incidental take permits under CESA. This would result in additional cost to landowners proposing timber harvesting within the geographic range of coho salmon to engage in a lengthy, separate permitting process with DFG under CESA, involving a separate environmental review process under CEQA. It would also result in additional cost to State agencies responsible for the protection of the species for additional rulemaking and associated additional environmental review under CEQA.

4. Incorporate changes to the rule language presented in 14 CCR § 895.1 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

5. Incorporate changes to the rule language presented in 14 CCR § 895 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The Board staff estimated that there are no significant costs associated with this proposed revision to the rules. The Board has determined that the potential cost for this regulation would be minimal; consisting of minor printing costs to the State if any costs are incurred. This cost would not exceed the costs normally incurred each year by CAL FIRE to print and distribute rule language to field personnel. Therefore, the proposed regulations would not have a significant adverse economic impact on any business.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed change to the language under 14 CCR § 895.1 is intended to ensure continued application of appropriate existing regulations and measures to ensure protection of anadromous salmonids.

14 CCR §§ 916.9, 936.9, and 956.9

Protection and Restoration in Watersheds with Threatened or Impaired Values

PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO ADDRESS

In 1995, the Board issued a report indicating that, when considered as a whole, the Board's rules were generally effective in protecting water quality, but the report identified outstanding issues related to winter period operations, Class III watercourse protection, and the restorable uses of water for fisheries (Final Report on the Implementation and Effectiveness of the Watercourse and Lake Protection Rules, 1995).

Additionally, a comprehensive review of the California Forest Practice Rules (FPRs), with regard to their adequacy for the protection of salmonid species, was prepared for the Board in 1999 (Report of the Scientific Review Panel [SRP report], 1999). Following an extensive review of the regulations, "The SRP concluded the FPRs, including their implementation (the 'THP process') do not ensure protection of anadromous salmonid populations" (Report of the Scientific Review Panel, 1999).

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance

of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

The Board recognized the substantial concerns raised by other agencies additionally charged with the protection of the State's valuable anadromous salmonid resources. The Board is aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping permitting processes. Considering these factors and the findings presented in previous reports, the Board adopted changes to the FPRs under a previous rulemaking package (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). These rules were adopted to enhance protection of anadromous salmonids and their habitat. Specific objectives of these rules include protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. These regulations for the protection of anadromous salmonids will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG's coho salmon recovery strategy, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG's proposed procedural regulations rely in part upon the Board's proposed regulations that are the subject of this Initial Statement of Reasons. The proposed Board regulations set forth certain definitions and substantive measures in the FPRs that enable DFG to establish certain incidental take permitting procedures that meet the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits, including a certification process for providing incidental take permits under CESA for timber operations and activities that may result in take of coho salmon. While the previous rules for the "Protection for Threatened and Impaired Watersheds" addressed many of the factors that may affect coho salmon, DFG has indicated that the protection measures provided by these rules could not be relied upon to meet the issuance criteria for incidental take permits. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the FPA and the FPRs. The Board has worked with DFG and other agencies to develop this regulatory proposal to specifically provide an integrated approach to facilitate incidental take authorization in watersheds with coho salmon; however, the current rules for the "Protection for Threatened and Impaired Watersheds" conflict with the proposed rules for coho salmon in some cases due to their applicability to watersheds with any listed anadromous salmonids, including Coho salmon. Without

such an integrated approach, in addition to applying to CAL FIRE for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would result in additional cost to landowners proposing timber harvesting within the geographic range of coho salmon to obtain individual incidental take permits through the standard process set forth in Section 2081(b) of the Fish and Game Code and the associated cost of environmental review under CEQA. It would also result in additional cost to DFG for additional rulemaking to reestablish the substantive regulations and the associated environmental review required under CEQA.

SPECIFIC PURPOSE OF THE REGULATION

The proposed change to the language under 14 CCR §§ 916.9, 936.9, and 956.9 is intended to ensure continued application of appropriate regulations and measures pertaining to protection of anadromous salmonids, while providing an exception to ensure that any additional measures specific to coho salmon will not result in a conflict. This change is specifically intended to minimize conflict with existing regulations and to provide clarity to landowners, plan preparers, and agencies in determining where and when specific regulations apply depending on the anadromous salmonid species present within a watershed.

NECESSITY

In conformance with the definition of “Watersheds with Threatened or Impaired Values” (ref. 14 CCR § 895.1), the existing regulations under 14 CCR §§ 916.9, 936.9, and 956.9 currently apply to all planning watersheds where any species of listed anadromous salmonids are currently present or where their populations can be restored. Because the protection measures provided by these rules could not be relied upon by DFG to establish certain procedures for providing incidental take permits, namely a certification process, under CESA for timber operations and activities that may result in take of coho salmon that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits. Since coho salmon are listed anadromous salmonids, this change proposed under 14 CCR §§ 916.9, 936.9, and 956.9 is necessary to provide clear, continued direction to the public, landowners, plan preparers, and agencies that there are separate and specific regulations that apply to watersheds with coho salmon. This is necessary for clarity in plan preparation, plan review, and enforcement.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD’S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not revise 14 CCR § 916.9, 936.9, and 956.9 to add the provision providing an exception for watersheds with coho salmon.

This alternative would not address the public problem this regulation is intended to address. Failure to adopt this proposed change to 14 CCR § 916.9, 936.9, and 956.9 would result in conflicting regulations in watersheds with coho salmon.

2. Incorporate changes to the rule language presented in 14 CCR § 916.9, 936.9, and 956.9 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

3. Incorporate changes to the rule language presented in 14 CCR § 916.9, 936.9, and 956.9 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The Board staff estimated that there are no significant costs associated with this proposed revision to the rules. The Board has determined that the potential cost for this regulation would be minimal; consisting of minor printing costs to the State if any costs are incurred. This cost would not exceed the costs normally incurred each year by CAL FIRE to print and distribute rule language to field personnel. As no other costs have been associated with this proposed revision to the rules, the Board has determined that the potential for additional costs for this regulation would be minimal in the context of overall, long-term fisheries operations and. Therefore, the proposed regulations would not have a significant adverse economic impact on any business.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed change to the language under 14 CCR §§ 916.9, 936.9, and 956.9 is intended to ensure continued application of appropriate existing regulations and measures to ensure protection of anadromous salmonids and specifically, coho salmon.

14 CCR §§ 916.9.1 and 936.9.1

Minimization and Mitigation Measures for Protection and Restoration in Watersheds with Coho Salmon

PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO ADDRESS

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

The Board recognized substantial concerns raised by DFG in regard to the protection of the coho salmon. The Board is aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping

permitting processes. Previously, the Board adopted changes to the FPRs under a comprehensive rulemaking package for the protection of all listed anadromous salmonids (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). Specific objectives of these rules included protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. DFG has indicated that these regulations for the protection of anadromous salmonids are the “baseline” measures for the protection of coho salmon; however, these rules will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG’s coho salmon recovery strategy, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. As such, DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG’s proposed procedural regulations rely in part upon the Board’s proposed regulations that are the subject of this Initial Statement of Reasons. The proposed Board regulations set forth certain definitions and substantive measures in the FPRs that enable DFG to establish certain incidental take permitting procedures that meet the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits, including a certification process for providing incidental take permits under CESA for timber operations and activities that may result in take of coho salmon. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the FPA and the FPRs. Without such an integrated approach, in addition to applying to CAL FIRE for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would involve separate environmental review processes and related costs to both the permit applicant and DFG.

SPECIFIC PURPOSE OF THE REGULATION

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1 is intended to ensure that the “baseline” standards provided by the rules for the “Protection for Threatened and Impaired Watersheds”, with some modifications, do not expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (a) states resource protection goals for every timber operation in a watershed with threatened or impaired water-related values. These goals are based on those collaboratively developed by many experts involved in the California Salmon Initiative and the Watershed Restoration and Protection Council (WPRC). They are intended to

address those natural factors that are most critical for water-related values and are most likely to be affected by timber operations. The goals do not prescribe any desired future conditions or numeric targets. Sediment loading, often the most severe water quality impact associated with timber operations, is addressed by the first two goals. The first four goals could apply to any land use; they express a policy of noninterference with natural recovery rates and processes, simply requiring that timber operations result in no adverse changes in sediment loading, bank and channel stability, migratory passage, and stream flow. The fifth and sixth goals are intended to address protection of beneficial functions of riparian zone vegetation and are more directly applicable to timber management. They have a more active recovery component because they are directly related to timber management activities fully under State jurisdiction. They are intended to focus on the critical near-stream areas and address the other two major impacts of timber management on water-related values in California; increased thermal loading and decreased stream recruitment of Large Woody Debris (LWD). Finally, the goals are intended to provide guidance to address peak flow and flood frequency, which is required under the FPA (ref. PRC § 4551.5) and which, if increased, could result in direct and indirect impacts to coho salmon habitat. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

Consistent with the WPRC report, the proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (b) is intended to recognize that the impairment of a water body that leads to a listing of a species under CESA generally does not occur as the result of a single catastrophic event, but as the cumulative result of many events over time and space. This policy is intended to bring about institutionalized recognition and acceptance of the reality and importance of adverse cumulative watershed effects and of the need to take responsibility for reducing them. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (c) is intended to recognize the critical importance of near-stream/riparian areas along Class I and Class II waters and their beneficial functions in protecting water-related values. It recognizes that management priority in such areas should be resource protection, maintenance, or restoration. Timber management and operations would be lightest and most protective within the WLPZ (Watercourse and Lake Protection Zone) adjacent to Class I watercourses. Consistent with other aquatic conservation strategies, this provision also creates a management buffer within the Class II WLPZ. Timber management and operations would be somewhat less restricted in this WLPZ than those within the WLPZ for a Class I watercourse. Furthermore, this provision creates an additional management buffer outside of the inner zone of the WLPZ. Timber harvesting and potential site disturbing activities are intended to be minimal and protected the most within the inner zone of the WLPZ; harvesting activities are allowed to be somewhat greater and less restrictive in the outer zone. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (d) is intended to clarify that all practices approved by CAL FIRE and subsequently implemented, shall provide the higher level of protection needed in these watersheds, and to ensure that adequate information is included in a plan to describe these measures for public and agency review. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (e) is intended to prevent direct impacts to watercourses and salmonids by strictly limiting timber harvesting within the channel zone. Operations within this area pose the greatest potential for directly impacting coho salmon and salmonid habitat due to the risk of sediment input directly into the stream, increased temperatures due to reduced canopy, reduction in potential large woody debris input into the watercourse, and other potential impacts. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (f) is intended to provide an appropriate buffer to Class I watercourses from potential impacts by expanding the minimum WLPZ width for along these watercourses from 75 feet to 150 feet. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (g) is intended to provide long-term benefits to salmonids through various means such as stream temperature regulation, potential large woody debris input into the watercourse, input of nutrients into the stream, and microclimate regulation through increased canopy retention standards for Class I waters. Additionally, this provision is intended to minimize disturbance to the existing hardwood canopy, providing shade and nutrients, and minimizing soil disturbance and subsequent sedimentation within the WLPZ for Class I watercourses. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (h) is intended to provide informational requirements that would allow CAL FIRE to ensure that any disturbance resulting from timber harvesting operations within a Class I WLPZ will conform with the goals in subsection (a). This provision requires that information be provided regarding existing permanent crossings of Class I waters, including information on how they will be used or maintained during timber operations to minimize risks to water-related values (especially fish passage). Furthermore, it requires full disclosure of specifications for any new or reconstructed Class I watercourse road crossings needed to protect water-related values. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (i) is intended to ensure adequate recruitment of the Large Woody Debris (LWD) needed

to provide instream structure for proper hydrologic function and aquatic habitat to support water-related values. Large wood delivered over the long-term provides refugia for salmonids, controls stream flow and velocity, creates pools, and provides other benefits to salmonids. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (j) is intended to address operations within an inner gorge. It is intended to prevent operations within an inner gorge or on excessively steep slopes from resulting in mass failure of the slopes, which could contribute significant detrimental amounts of soil and debris into a watercourse. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (k)(1) is intended to ensure that all relevant information is evaluated in developing appropriate winter period timber harvesting operations and provides minimum operating standards for winter period operations that are anticipated to prevent significant erosion and sediment delivery to streams. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (k)(2) is intended to provide restrictions on the construction, reconstruction, or use of tractor roads without an approved plan to minimize the potential for impacts during the part of the year that rain is expected to occur so that soil or other material will not be transported to a watercourse or lake as a result of these operations. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (k)(3) is intended to establish the minimum standard for the use of equipment on roads or landings to minimize the potential for impacts during the part of the year that rain is expected to occur so that soil or other material will not be transported to a watercourse or lake as a result of these operations. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (l) is intended to ensure that all relevant information is evaluated in developing appropriate winter period forest practices, and provides minimum operating standards for winter period operations that are anticipated to prevent significant erosion and sedimentation. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (m) is intended to ensure that tractor road construction and use do not advance to the point that the installation of needed drainage facilities cannot be completed prior to the start of heavy rains that could result in the transport of sediment into a watercourse. This

new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (n) is intended to provide soil stabilization (i.e. treatment) to prevent accelerated soil erosion or movement within a WLPZ, Equipment Exclusion Zone (EEZ), or Equipment Limitation Zone (ELZ) through the following:

- a) Treatments must be described in a plan so their adequacy can be ensured during plan review.
- b) Time limits for doing the treatments are established to ensure that soil disturbance does not get so far ahead of treatment that treatment cannot be completed prior to the start of heavy rains.
- c) Treatment of the traveled surface of roads to prevent generation of sediment or concentration of surface runoff during periods of use.
- d) Treatment of other specific disturbed areas to prevent the occurrence of a discharge of sediment or concentrated runoff into waters. Coverage of at least 90% is needed to ensure successful treatment.
- e) Treatment of an undisturbed area where its natural ability to filter sediment, minimize soil erosion, and stabilize banks of watercourses and lakes and otherwise buffer waters from the effects of a timber operation is low.

This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (o) is intended to reduce sediment accumulations from existing active erosion sites in the logging area by requiring that they be identified, that their significance and the feasibility of remedying them be evaluated, and that a remedial action plan and schedule be developed. This new subsection requires that the plan preparer do the needed work and submit the remedial action plan as part of the required plan so the adequacy of the work and plan can be evaluated. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (p) is intended to reduce sediment impacts associated with erosion originating from roads and landings through a required three year erosion control maintenance period on specified roads and landings. Three years is the maximum duration of the erosion control maintenance period allowed by statute. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (q) is intended to further reduce the impacts to salmonid habitat from sedimentation through increased restrictions on site preparation activities adjacent to watercourses. Additionally, it is intended to minimize loss of LWD, soil stabilizing vegetation, and duff by requiring burning prescriptions for evaluation that include measures addressing these elements and restricting areas where ignition can occur during treatments with prescribed fire. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (r) is intended to prevent adverse effects on water-related values that could result from improper water drafting operations. Drawing water through water drafting operations from watercourses can adversely affect aquatic species in several ways: (i) too much water can be withdrawn to allow continued migration or reproduction of fish and other vertebrates, (ii) individuals can be sucked up through water intakes, (iii) construction and use of water holes and approaches can generate sediment and allow petroleum or other contaminants into the water. This subsection is intended to reduce or eliminate these effects by requiring specific, detailed information be included in the plan for agency and public review prior to approval of the operations. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

Exempt timber operations (per 14 CCR §§ 1038 et seq.) are not subject to a focused interagency environmental review, so their potential impacts to salmonids cannot be fully evaluated to determine if the standard measures for protection are adequate to prevent take of a species. The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (s) is intended to significantly restrict operations conducted under an exemption notice from the zones established to protect water-related values. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

Emergency timber operations (per 14 CCR § 1052) are not subject to a focused interagency environmental review, so their potential impacts to salmonids cannot be fully evaluated to determine if the standard measures for protection are adequate to prevent take of a species. The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (t) is intended to significantly restrict operations conducted under an emergency notice from the zones established to protect water-related values; requiring the retention of a certain level of stocking, a certain number of dead trees for large woody debris recruitment, and requiring that the areas be restocked to enhance recovery of the riparian vegetation. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (u) is intended to ensure there are no unnecessary impacts to water and salmonid habitat as a result of operations conducted to remove dead or dying trees from within the WLPZ

under salvage logging operations. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (v) is intended to allow Registered Professional Foresters (RPFs) to develop and propose site-specific protection measures for the protection of coho salmon, providing such measures meet the goals of this section, as well as the other rules of the Board. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (w) is intended to ensure that any alternative proposed for site-specific protection measures provides equal or greater protection for coho salmon, has been developed through consultation with DFG, and meets the goals of this section. This new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (x) is intended to ensure that site-specific alternatives proposed for the protection of coho salmon are developed and evaluated consistent with 14 CCR §§ 916.6 and 936.6 in the same manner as any other alternative, or that they are based upon a detailed and comprehensive watershed evaluation and have received DFG concurrence. With the exception of the watershed evaluation provisions, this new subsection proposes to adopt language that is principally the same as the existing language set to expire December 31, 2007.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (y) is intended to recognize that timberland owners may receive authorization for incidental take of coho salmon as a result of several processes that are independent of the Board's regulations. When incidental take has been authorized through one of these processes, it is the Board's intent through this subsection to allow operations to be conducted in conformance with the take authorization provisions rather than the operational provisions listed under 14 CCR §§ 916.9.1, 936.9.1, 916.9.2, and 936.9.2. This new subsection proposes to adopt language that similar to existing language set to expire December 31, 2007 and that provides an exception to this section of the rules when an incidental take permit has been authorized.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (z) is intended to recognize that timberland owners may have entered into an agreement with DFG to incorporate specific measures in the plan that DFG has determined will avoid take of coho salmon. When such measures have been incorporated into a plan, it is the Board's intent through this subsection to allow operations to be conducted in conformance with those site-specific provisions rather than the standard operational provisions listed under 14 CCR §§ 916.9.1, 936.9.1, 916.9.2, and 936.9.2.

NECESSITY

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1 is necessary to ensure that the “baseline” standards provided by the rules for the “Protection for Threatened and Impaired Watersheds”, with some modifications, do not expire December 31, 2007. This is necessary to provide a regulatory procedure for CESA protections specific to coho salmon that is integrated into the FPRs and that DFG can rely upon to establish certain procedures for providing incidental take permits, namely a certification process, under CESA for timber operations and activities that may result in take of coho salmon that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (a) states resource protection goals for every timber operation in a watershed with threatened or impaired water-related values. These goals are necessary to address those natural factors that are most critical for water-related values and are most likely to be affected by timber operations such as sediment loading, which is often the most severe water quality impact associated with timber operations. The rule changes are necessary to clearly establish a policy of non-interference with natural recovery rates and processes, requiring that timber operations result in no adverse changes in sediment loading, bank and channel stability, migratory passage, and stream flow. Additionally, the rule changes are necessary for the protection of beneficial functions of riparian zone vegetation and those values associated with the critical near-stream areas. Furthermore, the rule changes are necessary to address three other major impacts of timber management on water-related values in California, increased thermal loading, decreased stream recruitment of LWD, and increased peak flow or flood frequency. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language (policy statement) under 14 CCR §§ 916.9.1 and 936.9.1, subsection (b) is necessary to bring about institutionalized recognition and acceptance of the reality and importance of adverse cumulative watershed effects, and of the need to take responsibility for reducing them. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (c) is necessary due to the critical importance of near-stream/riparian areas along Class I

and Class II waters and their beneficial functions in protecting water-related values. The Board has determined that it is necessary to recognize that management priorities in such areas should be resource protection, maintenance, or restoration. This provision is necessary to maintain a management buffer within the Class I and Class II WLPZs and to appropriately restrict timber operations in this area. Additionally, this provision is necessary to create additional management buffers outside of a WLPZ to minimize potential direct, indirect, and cumulative impacts to water. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (d) is necessary to provide the higher level of protection needed in watersheds with coho salmon, and to ensure that adequate information is included in a plan to describe these measures for public and agency review. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (e) is necessary to prevent direct impacts to watercourses and salmonids by strictly limiting timber harvesting within the channel zone. Operations within this area pose the greatest potential for directly impacting coho salmon and salmonid habitat due to the risk of sediment input directly into the stream, increased temperatures due to reduced canopy, reduction in potential large woody debris input into the watercourse, and other potential impacts. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (f) is necessary to provide an appropriate buffer to Class I watercourses from potential impacts, providing a wider filter strip for sediment filtration, increase canopy for shade and microclimate control, and a reduction in the loss of potential large wood deposits into the watercourse. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance

criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (g) is necessary to provide long-term benefits to salmonids through various means such as stream temperature regulation, potential large woody debris input into the watercourse, input of nutrients into the stream, and microclimate regulation through increased canopy retention standards for Class I waters. To further ensure these long-term benefits are provided, the proposed additional rule language is necessary to minimize disturbance to the existing hardwood canopy, providing shade and nutrients, and minimizing soil disturbance and subsequent sedimentation within the WLPZ for Class I watercourses. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (h) is necessary to provide adequate information to allow CAL FIRE to ensure that any disturbance resulting from timber harvesting operations within a Class I WLPZ will conform with the goals in 14 CCR §§ 916.9.1 and 936.9.1, subsection (a). Inadequately designed, located and constructed logging road crossings contribute to sediment loading and blockage of fish passage. A detailed description of all crossings of Class I watercourses and full disclosure of specifications for their use or modification is necessary to ensure protection of water-related values, including coho salmon habitat. Additionally, full disclosure of specifications for construction and use of new Class I watercourse road crossings is also necessary to ensure protection of water-related values, including coho salmon habitat. Specific requirements are needed for new crossings of Class I waters because they are documented as often impairing fish habitat, including passage. They should be designed, located, and built to cause essentially no alteration of stream hydrologic and biologic functions, and to ensure fish passage is allowed during all life stages of coho salmon. The information required under this provision regarding the construction, use, and modification specifications is necessary for adequate review of the proposed operations by agencies and the public prior to approval of a plan. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (i) is necessary to ensure adequate recruitment of the Large Woody Debris (LWD) needed to provide instream structure for proper hydrologic function and aquatic habitat to support water-related values. Large wood delivered over the long-term provides refugia

for salmonids, controls stream flow and velocity, creates pools, and provides other benefits to salmonids. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (j) is necessary to prevent operations within an inner gorge from resulting delivery of significant amounts of soil and debris into a watercourse. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (k)(1) is necessary to ensure that all relevant information is evaluated in developing appropriate winter period timber harvesting operations and to provide minimum operating standards for winter period operations needed to prevent significant erosion and sediment delivery to streams. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

Timber operations during certain periods of the year pose a greater risk of erosion and sedimentation than other operations due to anticipated rainfall events. The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (k)(2) requires a full winter period operating plan, which is necessary to ensure that all relevant information is evaluated in developing appropriate timber harvesting operations during this period (October 15 to May 1). Soil disturbance during this period is especially likely to lead to erosion and sediment delivery to a watercourse when soils are saturated and operations occur on steeper slopes near watercourses. The risk to water-related values, including coho salmon, is increased when such disturbance occurs. The restriction on the construction and use of tractor roads during this period is necessary to minimize this risk.

Equipment operations during periods when rain is likely may result in excessive soil disturbance likely to generate sediment and/or concentrate surface runoff. The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (k)(3) is necessary to ensure equipment only operates on surfaces capable of supporting heavy equipment operations without excessive surface or soil disturbance.

Timber operations during the winter period pose a greater risk of erosion and sedimentation than other operations. The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (l) requires a full winter period operating plan, which is necessary to ensure that all relevant information is evaluated in developing appropriate winter period timber harvesting operations. Soil disturbance during the winter period is especially likely to lead to erosion and sediment delivery to a watercourse when soils are saturated, during heavy rains resulting in overland flows, and when soils are repeatedly disturbed through grading or other operations. The risk to water-related values, including coho salmon, is further increased when such disturbance is located on steep slopes or near watercourses. The restriction on the construction and use of roads, landings, and skid trails during the winter period is necessary to minimize this risk.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (m) is needed to minimize erosion and sedimentation from tractor roads during occasional heavy rains which may occur at any time of year. The rule language is necessary to ensure that tractor road construction and use does not proceed at a rate that will not allow drainage facility installation in a timely manner prior to the onset of heavy rains.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (n) is necessary to provide soil stabilization adequate to prevent accelerated soil erosion or movement within a WLPZ, Equipment Exclusion Zone (EEZ), or Equipment Limitation Zone (ELZ). Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (o) is necessary to reduce sediment movement from existing active erosion sites in the logging area. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

Inadequate road maintenance has been identified as a chronic source of sediment production and subsequent delivery into watercourses. The proposed additional rule language under 14 CCR §§ 916.9.1 and 923.9.1, subsection (p) is necessary to provide ongoing maintenance until the road surface is stabilized and sources of sediment delivery are identified and mitigated. This is necessary to significantly reduce impacts on water-related values. Three years is the maximum duration of the erosion control maintenance period allowed by statute.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (q) is necessary to reduce the impacts to salmonid habitat from sedimentation, loss of LWD, and loss of soil stabilizing vegetation and duff from site preparation activities adjacent to watercourses. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (r) is necessary to reduce or eliminate direct and indirect adverse effects on water-related values that could result from improperly drawing water through water drafting operations from watercourses.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (s) is necessary to avoid take (pursuant to F&G Code § 86) of coho salmon as a result of operations conducted under an exemption notice in zones established to protect water-related values. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (t) is necessary to avoid take (pursuant to F&G Code § 86) of coho salmon as a result of operations conducted under an emergency notice in zones established to protect water-related values. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (u) is necessary to minimize the potential for impacts to water and salmonid habitat as a result of operations conducted to remove dead or dying trees under salvage logging operations. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (v) is necessary to allow Registered Professional Foresters (RPFs) to develop and propose more appropriate site-specific protection measures for the protection of coho salmon. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (w) is necessary to ensure that any alternative proposed for site-specific protection measures provides equal or greater protection for coho salmon than the standard provisions and that any proposed alternatives can be relied upon by DFG to meet the issuance criteria for incidental take applications for coho salmon. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (x) is necessary to ensure that site-specific alternatives proposed for the protection of coho salmon are developed and evaluated consistent with other existing Board rules, or that they are based upon a detailed and comprehensive watershed evaluation and have received DFG concurrence. With the exception of the watershed evaluation provisions, existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (y) is necessary to avoid duplicative and potentially conflicting regulations for the protection of coho salmon being applied to timber operations when timberland owners have received authorization for incidental take of coho salmon as a result of a processes that is independent of the Board’s regulations. Existing similar language that serves this purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to facilitate an integrated approach that would enable DFG to establish a certification process for obtaining incidental take permits that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for timber operations and activities that may result in take of coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1, subsection (z) is necessary to avoid duplicative and potentially conflicting regulations for the protection of coho salmon being applied to timber operations when timberland owners have entered into an agreement with DFG to incorporate specific measures in the plan that DFG has determined are necessary and appropriate.

**ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD
AND THE BOARD'S REASONS FOR REJECTING THOSE ALTERNATIVES**

1. Do not adopt the additional rule language under 14 CCR §§ 916.9.1 and 936.9.1 intended to ensure that the “baseline” standards currently provided by the rules for the “Protection for Threatened and Impaired Watersheds”, do not expire December 31, 2007.

This alternative would not address the public problem this regulation is intended to address. Should the Board choose not to adopt these regulations, DFG could not rely on them for appropriate application of the FPRs necessary to enable DFG to establish certain procedures for providing incidental take permits, namely a certification process, for timber operations and activities that may result in take of coho salmon that meet the issuance criteria for incidental take permits under CESA. This would require DFG to adopt separate regulations under their authority to reestablish these definitions either now or in the future should the Board choose to allow them to expire. This would result in confusion and additional cost to landowners proposing timber harvesting within the geographic range of coho salmon. Landowners would not know at the time of plan preparation whether or not the Board's rules would suffice to meet the issuance criteria for incidental take permits and may have to engage in a lengthy, separate permitting process with DFG under CESA, involving a separate environmental review process under the California Environmental Quality Act (CEQA). It would also result in additional cost to State agencies responsible for the protection of the species for additional rulemaking and associated additional environmental review under CEQA.

2. Incorporate changes to the rule language presented in 14 CCR §§ 916.9.1 and 936.9.1 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that

the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

3. Incorporate changes to the rule language presented in 14 CCR §§ 916.9.1 and 936.9.1 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

Previously, the Board adopted changes to the FPRs under a comprehensive rulemaking package for the protection of all listed anadromous salmonids (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. DFG has indicated that these regulations for the protection of anadromous salmonids are the “baseline” measures for the protection of coho salmon; however, these rules will expire on December 31, 2007 absent further Board action. The proposed additional rule language under 14 CCR §§ 916.9.1 and 936.9.1 is intended to ensure that the “baseline” standards provided by the rules for the “Protection for Threatened and Impaired Watersheds”, with some modifications, do not expire. These new sections of the FPRs proposes to adopt language that is principally the same as the existing language without an expiration date, but is limited to only those watersheds where coho salmon are present. It is anticipated that the potential for economic impact to any business conducting timber operations in these areas will remain the same as operations under the existing rules.

The Board staff estimated that this regulation could potentially result in a significant adverse economic impact on businesses conducting timber operations in watersheds with coho salmon; however, the costs associated with the requirements imposed by the new regulations are difficult to estimate as they vary greatly. The Board staff estimated that this regulation could potentially result in long-term costs that would vary greatly depending on, but not limited to 1) the current condition of the watershed, (i.e. beneficial uses of water, riparian habitat, or others), 2) the topographic and geologic features affecting harvesting practices, 3) the affected area under the control of the plan submitter, and 4) the long-term land management goals of the plan submitter. The protection measures currently provided in the rules and those that are proposed under this rulemaking package are anticipated to provide the means to secure restoration over a long period of time in most instances. Therefore, some cost will be incurred over time and will not significantly impact overall cost of land management. Considering the broad range of circumstances that would affect costs associated with the new requirements, the Board has determined that estimations of the potential cost for this regulation would be difficult to present in a format that would provide for meaningful public disclosure. However, the following estimations of costs associated with various portions of the proposed rules are provided for consideration:

One cost associated with the rule changes is related to opportunity costs, or impacts to Long Term Sustained Yield (LTSY). Retaining the Class I Watercourse and Lake Protection Zone (WLPZ) minimum width of 150 feet is likely to affect almost all standard-width Class I WLPZs, since very little is currently at 150 feet. (Nearly all WLPZs on >50% are probably cable and thus the table value of 150 feet is usually reduced to 100 feet.) The effect is to increase WLPZ area by about 50% or more, with that increase coming from timberland whose productivity and yield are otherwise largely unconstrained by stream protection considerations. It is estimated that this change will impact long term sustainable yields, which may be reduced by one or two percent for ownerships on the north coast.

Establishing a Special Management Zone (SMZ) for inner gorges could result in impacts to LTSY as described above. This could result in an additional ½ to 1- percent loss of regional LTSY similar to that from increasing the minimum Class I WLPZ.

Establishing a Special Management Zone for inner gorges could result in expenditure of RPF time to evaluate and flag the SMZs. This could result in a cost of \$500 to \$2,000 per plan in some areas. A review by a Certified Engineering Geologist (CEG) could cost \$500 to \$4,000 per plan, depending on complexity and whether the geologist was an employee of the landowner or whether the landowner would have to hire a consultant.

The canopy retention requirements for Class I watercourses could result in an additional loss of LTSY; perhaps as much as ½ to 1% loss.

The requirement for permanent retention of Large Woody Debris (LWD) recruitment trees may require time by an RPF to analyze the WLPZ stand and mark trees. This could

take an additional two days of fieldwork per plan. Depending on the cost to retain an RPF, the additional costs could range between \$500 and \$2,500 per plan.

Mulching disturbed areas, particularly the additional areas and skid trails in the EEZ/ELZ, may cost between \$500 and \$2,000 per plan.

In regard to erosion remediation, the work required would be very site specific. However, there could be significant RPF and consulting engineering geologist (CEG) time, as well as operational costs. Considering the development of the plan, and implementation costs, these requirements could result in additional costs of up to \$100,000, if included with a large plan.

In regard to limits to broadcast burning site preparation activities, protection of vegetation and duff in the ELZ/EEZ could require the establishment of control lines around Class III watercourses, and burning only under prescriptions that result in incomplete removal of logging slash. This may result in higher site preparation and planting costs. The additional costs to a landowner if they choose this method of treatment is estimated at \$5,000 per evenaged regeneration plan.

Considering the above cost estimates, the Board staff has determined that the proposed regulations may have an adverse economic impact on businesses, and such impact may be significant.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed change to the language under 14 CCR §§ 916.9.1 and 936.9.1 is intended to ensure continued application of appropriate regulations and measures pertaining to protection of anadromous salmonids. These new sections of the FPRs propose to adopt language that is principally the same as the existing language without an expiration date, but are limited to only those watersheds where coho salmon are present. This change is specifically intended to minimize conflict with existing regulations and to provide clarity to landowners, plan preparers, and agencies in determining where and when specific regulations apply depending on the anadromous salmonid species present within a watershed.

14 CCR §§ 916.9.2 and 936.9.2

**Additional Measures to Facilitate
Incidental Take Authorization in
Watersheds with Coho Salmon**

**PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER
CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO
ADDRESS**

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list Coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

The Board recognized the substantial concerns raised by other agencies additionally charged with the protection of the State's valuable anadromous salmonid resources. The Board is also extremely aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping permitting processes. Considering these factors, the Board adopted changes to the FPRs under a previous rulemaking package (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). These rules were adopted to enhance protection of anadromous salmonids and their habitat. Specific objectives of these rules include protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. These regulations for the protection of anadromous salmonids will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG's coho salmon recovery strategy, including policies to guide the issuance of incidental take permits for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. As such, DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG's proposed procedural regulations in part rely upon the Board's proposed regulations that are the subject of this Initial Statement of Reasons. Currently, there is not a regulatory procedure for the issuance of incidental take

permits for coho salmon that is integrated with the FPA and the FPRs. Without such an integrated approach, in addition to applying to the Department of Forestry and Fire Protection (CDF) for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would involve separate environmental review processes and related costs to both the permit applicant and DFG.

SPECIFIC PURPOSE OF THE REGULATION

The proposed additional rule language under 14 CCR §§ 916.9.2 and 936.9.2 is intended to provide enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining an incidental taking process by certification is used.

NECESSITY

Watersheds with coho salmon frequently include commercial timberlands. In some cases, timber harvesting is the dominant, or sole, economic activity. Historic timber operations adversely affected aquatic habitat used by coho salmon and these watersheds have not completely recovered from legacy impacts. The Z'berg-Nejedly Forest Practice Act of 1973 substantially changed timber harvesting in California and diminished impacts from regulated timber harvesting on aquatic habitat for coho salmon and other aquatic species. Incremental improvements in the FPRs, active oversight by review team agencies and the public, and a growing ethic of stewardship by timberland owners has contributed to a landscape which is recovering from legacy impacts. Modern timber operations have far less impact on aquatic habitat than past practices. However, timber operations inevitably disturb the footprint of the plan area, return habitat to an earlier successional stage and create the potential for sediment delivery from roads appurtenant to the plan area. There are three primary adverse consequences of timber harvesting for coho salmon habitat: (1) delivery of sediment to the watercourse, (2) reduction in shade canopy for the watercourse, and (3) reduction in the rate and quality of large wood recruitment to the watercourse.

The CESA specifies, among other requirements, that the impacts of authorized take of a threatened, endangered, or candidate species be minimized and fully mitigated. Measures included in §§ 916.9.1, 936.9.1, 916.9.2, 936.9.2, 923.9.1, 943.9.1, 923.9.2, and 943.9.2 are intended and designed to minimize and fully mitigate impacts of take of coho salmon from lawful timber operations. Permanent retention of the Threatened and Impaired Watershed rules in watersheds with coho salmon is an essential element of this comprehensive proposal to minimize and fully mitigate impacts of take of coho salmon from lawful timber operations. Without permanent retention of the Threatened and Impaired Watershed Rules in these watersheds it would not be possible to ensure that a standard set of mitigation enhancements could be applied at a landowner's discretion when take is determined likely by the DFG and still meet the minimization and full mitigation standard. Taken as a whole, these measures are intended to minimize and fully

mitigate the impact of timber operations on aquatic habitat, accelerate short-term recovery of riparian and upland vegetation.

In most cases, “take” of coho salmon from approved timber operations is not likely to result in the mortality of numerous individual eggs or fish. Activities within the stream channel (e.g. construction or replacement of crossings, bank stabilization) or sediment delivered to spawning habitat are the most probable mechanisms for take. In the common instance where returning adult salmon are few in number, the take of even a few individuals can be a substantial impact on the population. With the Threatened and Impaired Rules as a baseline requirement for all plans in the watershed, application of the additional measures in §§ 916.9.2, 936.9.2, 923.9.1, 943.9.1, 923.9.2, and 943.9.2 have been determined by the California Department of Fish and Game to meet the minimization and full mitigation permit issuance criterion under CESA.

The proposed additional rule language under 14 CCR §§ 916.9.2 and 936.9.2, subsection (a) is intended to specify a set of measures which will contribute to minimizing and fully mitigating the impacts of incidental take of State listed coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.2 and 936.9.2, subsection (c) is necessary to improve habitat quality for Class I watercourses. Retention of trees which shade pool habitat will buffer diurnal and seasonal fluctuations in water temperature caused by insolation on the water surface. Retention of additional large conifers within 100 feet of the watercourse will improve recruitment over time of large woody debris into the watercourse, thereby improving channel complexity and sediment management, benefiting coho salmon.

The proposed additional rule language under 14 CCR §§ 916.9.2 and 936.9.2, subsection (d) is necessary to improve habitat quality for larger Class II watercourses. Watercourses which are mapped on 1:24,000 scale U.S. Geological Survey topographic maps are inferred to drain larger areas and provide surface flow later into the summer relative to watercourses which are not mapped. Class II watercourses deliver water directly into Class I watercourses where coho salmon, migrate, spawn and rear. Late summer flows pose a substantial risk to coho salmon by delivering warm water to rearing habitat.

Increased retention of trees in the inner zone of the WLPZ will improve bank stability, avoid generation of sediment from timber operations in close proximity to the watercourse, improve sediment filtration capacity and increase overstory canopy to buffer diurnal and seasonal fluctuations in water temperature caused by insolation on the water surface. Over time increased canopy retention standards will lead to larger, older and more trees in close proximity to the watercourse. As trees age and die, additional large wood will enter the channel. Woody debris in the channel tends to sort and store sediment delaying or preventing delivery into the downstream Class I watercourse. Additional canopy retention and width in the outer portion of the WLPZ will minimize generation of sediment from timber operations, improve sediment filtration capacity and buffer temperature fluctuations in the inner zone. To a lesser degree, portions of some trees in the outer zone may eventually reach the watercourse. An exception to the requirement for

additional width and canopy retention in the outer portion of the WLPZ is made in the Southern Subdistrict of the Coast Forest District and for Nonindustrial Timber Management Plans. This is because only unevenaged management is practiced in these circumstances. The exception is made because residual stand conditions under unevenaged management provide some buffering capacity to reduce temperature fluctuations in the WLPZ. No exception is made for THPs proposing unevenaged management because subsequent harvest entries could remove all trees retained after the previous harvest. The eventual result would be a very narrow WLPZ with minimal riparian function.

Class II watercourses deliver bedload, suspended sediment and turbidity to fish bearing Class I watercourses. Inner gorges pose a substantial risk for delivering large quantities of sediment because the steep slope leads directly into the watercourse. Timber operations on inner gorges may initiate landslides, delivering sediment and woody debris into the watercourse which eventually reach fish bearing watercourses. The requirement for unevenaged management within the inner gorge is intended to retain the capacity for root strength from live trees to assist in stabilizing the slope. In the event slope failure does occur, the delivery of wood with the sediment will assist with the process of sorting, storing and metering the release of sediment to downstream watercourses.

The proposed additional rule language under 14 CCR §§ 916.9.2 and 936.9.2, subsection (e) is necessary to reduce the contribution of sediment transported by Class III watercourses to aquatic habitat for coho salmon. By definition, Class III watercourses are capable of delivering sediment to Class I and II watercourses. Sediment may be delivered by wind or water to the Class III watercourse from adjacent harvest units. Through the processes of bank erosion and downcutting, Class III watercourses may also be an important source of sediment. The proposed measures will improve sediment management associated with Class III watercourse Equipment Limitation Zones, relative to existing practices in the FPRs, during timber operations and expedite the reestablishment of vegetation following timber operations.

The retention of all existing trees within the channel zone will reduce erosion of the channel and bank. Some of these trees will be uprooted by strong winds following timber operations which will likely deliver some sediment associated with the tree roots into the Class III watercourse where it will eventually be transported through the watercourse continuum. In the short term this effect will be adverse. However, in most cases, the root mass, and remainder of the tree will have longer term beneficial effects for sediment management.

Retention of all snags, large woody debris and countable trees less than 10 inches diameter at breast height will promote sediment management by retaining current and future sources of woody debris to intercept sediment before it reaches the watercourse and maintain soil stabilizing root systems. The prohibition on initiation of burning logging slash and unwanted vegetation within the Equipment Limitation Zone will improve retention of existing woody material relative to current Forest Practice Rule requirements.

The probation on tractor yarding (skidding of logs) will minimize mechanical disturbance of soil which could be delivered to the Class III watercourse.

The retention standard for hardwoods is intended to promote sediment management by retaining current and future sources of woody debris to interrupt transport of sediment at the soil surface and maintain soil stabilizing root systems. This standard is intended to ensure that where hardwood dominated stands are proposed for regeneration to conifer, some of the existing live trees are retained to assist in stabilizing the ELZ.

Connected headwall swales are prone to instability and pose a substantial risk for delivery of large quantities of sediment to the watercourse continuum. To reduce the probability of timber operations destabilizing the headwall swale, the connected headwall swale shall be designated as an Equipment Limitation Zones and a Professional Geologist shall review any proposed road construction and reconstruction. The requirement for unevenaged management within the connected headwall swale is intended to retain the capacity for root strength from live trees to assist in stabilizing the slope. In the event slope failure does occur, the delivery of wood with the sediment will assist with the process of sorting, storing and metering the release of sediment to downstream watercourses.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD'S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not adopt the additional rule language under 14 CCR §§ 916.9.2 and 936.9.2 intended to provide enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining an incidental take permit by certification for coho salmon from DFG for any timber operations and activities that would result in take of the species.

This alternative would not address the public problem this regulation is intended to address. Should the Board choose not to adopt these regulations, DFG could not rely on them for appropriate application of the FPRs necessary to enable DFG to establish certain procedures for providing incidental take permits, namely a certification process, for timber operations and activities that may result in take of coho salmon that meet the issuance criteria for incidental take permits under CESA. This would require DFG to adopt separate regulations under their authority to reestablish these definitions either now or in the future should the Board choose to allow them to expire. This would result in confusion and additional cost to landowners proposing timber harvesting within the geographic range of coho salmon. Landowners would not know at the time of plan preparation whether or not the Board's rules would suffice to meet the issuance criteria for incidental take permits and may have to engage in a lengthy, separate permitting process with DFG under CESA, involving a separate environmental review process under the California Environmental Quality Act (CEQA). It would also result in additional cost to State agencies responsible for the protection

of the species for additional rulemaking and associated additional environmental review under CEQA.

2. Apply to all watersheds with threatened or impaired values the additional rule language under 14 CCR §§ 916.9.2 and 936.9.2 intended to provide enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining an incidental take permit by certification for coho salmon from DFG for any timber operations and activities that would result in take of the species.

This alternative exceeds the scope of the public problem this regulation is intended to address. This would result in additional cost to landowners proposing timber harvesting within the geographic range of any listed anadromous salmonid.

3. Incorporate changes to the rule language presented in 14 CCR §§ 916.9.2 and 936.9.2 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

4. Incorporate changes to the rule language presented in 14 CCR §§ 916.9.2 and 936.9.2 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

This proposed regulatory action facilitates an expedited certification process for obtaining incidental take permits from DFG for timber operations that may result in the take of coho salmon. The certification process would authorize the take of coho salmon, a listed species under CESA. The proposed regulations would minimize and fully mitigate impacts of the timber harvesting activities on coho salmon. Therefore, to the extent businesses are engaged in activities that will take coho salmon and choose to obtain incidental take permits through the certification process, the proposed regulatory action may result in adverse economic impacts directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Where DFG authorizes take of coho salmon that is incidental to an otherwise lawful activity, impacts of the taking must be minimized and fully mitigated, and any such mitigation must be monitored for implementation and effectiveness under CESA. Permitting under CESA for incidental take of coho salmon would result in some increased costs when compared to the status quo under the current FPRs, which includes the federal take prohibition under the ESA. However, the magnitude of such effects is speculative. There are a number of ways that the magnitude can be estimated, but the results will vary depending on the methodology and assumptions involved. Three examples of differing perspectives or methodologies are provided below. Following a review of the methodologies is a conclusion as to the estimates of economic impact.

The first example is based on the perspective that because the majority of such activities are already subject to federal take prohibitions under the federal ESA, they have therefore incurred economic consequences as a result since the federal listings (1996 and 1997). As such, protection provided under CESA should not result in a significant increase in costs or burdens to California businesses. This is particularly true where consistency determinations pursuant to Fish and Game Code § 2080.1 is utilized to obviate the requirement for an incidental take permit under CESA.

The second example is based upon a portion of the analysis of potential costs of recovery of coho salmon relative to timber operations and activities, which were identified in Section I.13.1.2 of the “Recovery Strategy for California Coho Salmon (*Oncorhynchus kisutch*), Report to the California Fish and Game Commission (February 2004).” A currently unquantifiable fraction of these potential costs can potentially be attributed to

the listing of the species, as opposed to recovery, if practices result in take of coho salmon under CESA and the mitigation measures that were analyzed are utilized either by regulation or through individual timber harvest review processes to address take of coho salmon. The costs of proposed policies to guide the issuance of incidental take authorizations were estimated in the Recovery Strategy for Coho Salmon to be \$151-373 million over a minimum of 25 years, or stated another way, a reduction in timberland values by an estimated 2.8 to 6.9 percent (timberlands are valued at \$1,400 per acre on average), which is a reduction between \$39 and \$97 per acre. However, in reviewing the analysis, the DFG identified some errors in the analysis. As a result of these errors, the estimate reflected in the Recovery Strategy for Coho Salmon is too high. A more accurate estimate, based on information to date, is \$204-252 million. This is equivalent to a range of 3.8 to 4.7 percent, which represents a reduction in timberland values (which are valued at \$1400/acre on average) of between \$53 and \$66 per acre. These impacts would be spread over at least 40 years. In addition, these estimates assume that all of the recommended timberland management provisions would be applied to every timber harvesting plan and that none of the measures are already part of the plan. The DFG does not anticipate this will be the case because the proposed policies would be recommended as necessary on a site-specific basis when take of the species would occur or if the CAL FIRE were to require them in order to mitigate significant adverse effects on the environment pursuant to the California Environmental Quality Act. Thus, costs would likely be only a fraction of the revised estimates described above.

The third example uses a methodology that yields yet a different estimate of costs regarding timber management activities. This methodology is based on three factors, 1) the regulation's application over at least two to three decades, 2) its applicability to many of the watersheds from San Francisco to the Oregon border, and 3) the estimated level of noncompliance with existing regulations (such as the federal listing, water law, etc.). The state listing of coho salmon south of San Francisco in 1995 resulted in increased costs to timber companies operating within known coho salmon habitat areas. These costs are associated with implementation of mitigation measures for coho salmon and increased regulation. The DFG, in cooperation with CAL FIRE, developed a programmatic approach through Fish and Game Code § 2090 (which has since been repealed) to minimize the regulatory costs to businesses. The mitigations, which are listed in "Coho Salmon Biological Opinion and 2090 Agreement for Timber Harvest Plans South of San Francisco Bay (May 7, 1996)" are nearly identical to many of the requirements adopted four years later under the Forest Practice Rules, specifically the Threatened and Impaired Watershed Rules ("Protection for Threatened and Impaired Watersheds, 2000", 14 CCR §§ 895, 895.1, 898, 898.2, 914.8, 934.8, 954.8, 916, 936, 956, 916.2, 936.2, 956.2, 916.9, 936.9, 956.9, 916.11, 936.11, 956.11, 916.12, 936.12, 956.12, 923.3, 943.3, 963.3, 923.9, 943.9 and 963.9. As a result, the standard mitigations for coho salmon previously developed for the 1995 listing of coho salmon south of San Francisco have been universally applied north of San Francisco since 2000 (that is, two years prior to the finding that coho salmon north of San Francisco warranted listing) through the FPRs. Only where additional protective measures are proposed by the Board in its proposed action, and required by the certification process set forth in this proposed action, would there be increased costs as a result of the mitigation measures. Therefore, the annual

costs to timberland owners north of San Francisco are estimated to be \$180,000/year). According to 2004 data from the State Board of Equalization regarding timber harvest volumes, the total timber harvest volume within the range of coho salmon south of San Francisco is less than 1.7% of the timber harvest volume within the range of coho salmon north of San Francisco. Therefore, the estimated costs to timber operators south of San Francisco are estimated to be roughly 1.7% of \$180,000/year, which is \$3,000/year. Therefore the annual costs to timber operators statewide are estimated to be \$183,000/year or \$5.49 million over 30 years.

Table 2: Estimated cost to timber management.

COUNTY	Non-Federal Forested lands		Coho Streams	THPs ¹	THPs ² ITP	2081 ³	Mitigation ⁴	
	Total Streams	Coho Streams						
	miles	miles	Percent					
DEL NORTE	332.49	97.92	29.45%	30	4	\$4,417	\$30,922	
HUMBOLDT	3,048.90	347.35	11.39%	110	6	\$6,266	\$43,862	
MENDOCINO	3,441.30	609.99	17.73%	100	9	\$8,863	\$62,039	
SISKIYOU	1,347.15	121.90	9.05%	30	1	\$1,357	\$9,501	
SONOMA	1,060.95	72.20	6.81%	20	1	\$681	\$4,764	
TRINITY	866.83	62.16	7.17%	10	1	\$1,000	\$7,000	
Grand Total	10,260.83	1,311.52	12.78%	300	23	\$22,584	\$158,089	\$180,673 ⁵

¹=average number of individual THPs/county/year (excluding HCPs and NCCPs) within the range of coho salmon

²=estimated number of individual THPs needing an incidental take permit/year; based on staff interviews

³=estimated cost for incidental take permits for county (F&G Code section 2081)

⁴=estimated increase in county, THP mitigation costs required by 2081

⁵=total cost of incidental take permits and associated mitigation for coho salmon per year

Additionally, DFG modeled the effects of applying the prescriptive mitigation measures specified in the separate regulatory proposal of the Board to evaluate the impacts. This effort relied upon 61 randomly selected THPs from 2002 within the geographic range of coho salmon. Using geographic information system technology, DFG was able to estimate the extent of expanded Class II Watercourse and Lake Protection Zones (WLPZ) and additional retention for commercial tree species in Class III Channel Zones. DFG provided the following results:

Sample Size	61 THPs
Average THP size	298.4 acres
Average length Class I/THP	2,358'
Average Length Class II/THP ≥ 1st order	2,114'
Average length Class III/THP	6,242'
Ave increase in Class II WLPZ/THP ¹	4.6 acre (1.6%)
Average acreage of Class III channel zone/THP ²	1.43 acre (0.5%)

¹ The estimate does not include Class II watercourses which are not mapped on U. S. Geological Survey topographic maps because the additional prescriptions would not apply.

The net effect, on average for any THP where DFG determines take is likely, when the landowner elects to follow these prescriptions, is that an additional 2.1% of the THP area would be included in Class II WLPZ area or the Class III channel zone. Subject to canopy retention requirements, some trees in the Class II WLPZ would be available for harvest. For THPs in the Southern Subdistrict of the Coast Forest District and Nonindustrial Timber Management Plans, there would be additional canopy retention, but no additional Class II WLPZ acreage removed from harvesting. Additional tree retention will be required for Class II inner gorges and headwall swales for which no data are available to analyze the consequences. Additional measures for road management will increase costs but no data exist to quantify the impact. Further, there is considerable potential for project specific flexibility which may ameliorate some costs.

In the five year period from 1999 through 2003 there were 2,102 THPs in the eight counties with both timber harvesting and coho salmon. These counties are Del Norte, Humboldt, Trinity, Siskiyou, Santa Cruz, San Mateo, Sonoma and Mendocino. Of these, DFG estimated 1,585 had one or more harvest units where coho salmon are known to be present. There is currently no analysis which describes proximity of these THPs to coho salmon habitat. DFG currently reviews nearly every THP within watersheds with coho salmon as part of the THP review process and specifically to evaluate the likelihood that take of coho salmon will result. Since coho salmon were listed by the State in March of 2005, DFG has not yet determined that take is likely for any individual THP. This retrospective is not a reliable indication that future project reviews will reach the same determination in every case. It is likely that DFG will make determinations of take in a small fraction of THPs and some landowners may determine it in their interest to obtain an incidental take permit even without a DFG determination. Based upon the above it is reasonable to estimate that fewer than 10% of THPs in the future will obtain an incidental take permit for coho salmon from DFG.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed action establishes enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining incidental take permits through a certification process from DFG. The proposed action itself does not authorize incidental take of coho salmon, although it would facilitate DFG's establishment of a certification process for issuing incidental take permits. The proposed action would establish substantive requirements that are intended to minimize and fully mitigate impacts of the timber harvesting activities on coho salmon under Fish and Game Code section 2081, subdivisions (b). However, to the extent it can be argued that the proposed action could result in the incidental take of coho salmon from timber operations and activities, the proposed action includes measures that would minimize and fully mitigate those impacts, and thereby avoid jeopardy to the species. As a result, any significant adverse environmental effects would be mitigated to a level of less than

² Assumes a channel zone width of 10'

significant. This is supported by an Initial Study that was prepared for the proposed action. The Initial Study is incorporated herein by this reference.

14 CCR §§ 916.11.1 and 936.11.1

**Monitoring for Adaptive Management in
Watersheds with Coho Salmon**

**PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER
CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO
ADDRESS**

The Board is required to continuously review its rules and regulations in consultation with concerned federal, state, and local agencies, educational institutions, civic and public interest organizations, and private organizations and individuals to help better inform the Board on matters related to the FPRs (ref. PRC § 4553). Any revisions to the rules adopted by the board must be based upon a study of the factors that significantly affect the present and future condition of timberlands (ref. PRC § 4552). Regarding the protection of coho salmon and its habitat, the Board must consider such factors as heat transfer, wood transfer, sediment transfer, nutrient transfer, water transfer and biotic transfer in watersheds with coho salmon. Previous reports to the Board indicate that the rules may provide too much or too little protection in some cases, and do not account for site factors which might justify some other form of mitigation or impact avoidance strategy. In March of 2005, coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border. The Board is aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement policies to guide the issuance of incidental take permits for timber operations and activities under CESA. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the FPA and the FPRs. Without such an integrated approach, in addition to applying to the Department of CAL FIRE for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would involve separate environmental review processes and related costs to both the permit applicant and DFG. Where DFG authorizes take of coho salmon that is incidental to an otherwise lawful activity such as an approved timber harvesting plan, impacts of the taking must be minimized and fully mitigated, and any such mitigation must be monitored for implementation and effectiveness under CESA.

Currently the Board does not have a consistent monitoring and adaptive management program specific to operations that may have an impact on coho salmon and its habitat that can be used to (i) determine whether or not the operational FPRs and associated hillslope and instream mitigation measures afford a level of protection that is both appropriate and adequate to ensure protection of coho salmon and its habitat, (ii) provide monitoring necessary to ensure the FPRs are being implemented in a manner consistent with the CESA as required under 14 CCR § 896, and (iii) provide a timely

feedback process for the Board to assess rule effectiveness in meeting the stated goals under (i) and (ii) above.

SPECIFIC PURPOSE OF THE REGULATION

The proposed additional rule language under 14 CCR §§ 916.11.1 and 936.11.1 is intended to provide the Board guidance in the development of a monitoring and adaptive management program for timber harvesting operations in watersheds with coho salmon. The purpose of the monitoring and adaptive management program will be: (i) to determine whether or not the operational FPRs and associated hillslope and instream mitigation measures afford a level of protection that is both appropriate and adequate to ensure protection of coho salmon and its habitat, (ii) to provide monitoring necessary to ensure the FPRs are being implemented in a manner consistent with the CESA as required under 14 CCR § 896, and (iii) to provide a timely feedback process for the Board to assess rule effectiveness in meeting the stated goals under subsections (i) and (ii).

NECESSITY

The proposed additional rule language under 14 CCR §§ 916.11.1 and 936.11.1 is necessary to establish a consistent monitoring and adaptive management program to determine the applicability, appropriateness, and effectiveness of the FPRs specific to operations that may have an impact on coho salmon and its habitat to ensure full compliance with the FPA and CESA (ref. PRC §§ 4552 and 4553). Development of a monitoring program is necessary to (i) determine whether or not the operational FPRs and associated hillslope and instream mitigation measures afford a level of protection that is both appropriate and adequate to ensure protection of coho salmon and its habitat, (ii) provide monitoring necessary to ensure the FPRs are being implemented in a manner consistent with the CESA as required under 14 CCR § 896, and (iii) provide a timely feedback process for the Board to assess rule effectiveness in meeting the stated goals under (i) and (ii) above. Where DFG authorizes take of coho salmon that is incidental to timber harvesting operations, these new rules are also necessary to monitor for implementation and effectiveness under CESA.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD'S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not adopt the additional rule language under 14 CCR §§ 916.11.1 and 936.11.1 intended to establish a consistent monitoring and adaptive management program to determine the applicability, appropriateness, and effectiveness of the FPRs specific to operations that may have an impact on coho salmon and its habitat to ensure full compliance with the FPA and CESA.

This alternative would not address the public problem this regulation is intended to address. Should the Board choose not to adopt these regulations, the Board would not have a consistent monitoring and adaptive management program to determine the appropriateness and effectiveness of its rules and DFG could not

rely on the Board's rules to meet the issuance criteria for incidental take applications for coho salmon and would be required to adopt separate regulations under their authority. This would result in additional cost to landowners proposing timber harvesting within the geographic range of coho salmon to obtain separate permits, as well as additional cost to State agencies responsible for the protection of the species as a result of additional rulemaking and additional environmental review required under CEQA and CESA.

2. Apply to all watersheds with threatened or impaired values the additional rule language under 14 CCR §§ 916.11.1 and 936.11.1 intended to establish a consistent monitoring and adaptive management program to determine the applicability, appropriateness, and effectiveness of the FPRs specific to operations that may have an impact on coho salmon and its habitat to ensure full compliance with the FPA and CESA.

This alternative exceeds the scope of the public problem this regulation is intended to address. This would result in additional cost to landowners proposing timber harvesting within the geographic range of any listed anadromous salmonid.

3. Incorporate changes to the rule language presented in 14 CCR §§ 916.11.1 and 936.11.1 based upon comments regarding a previous draft proposal entitled "Coho 2112 Strawman v6" dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to "Coho 2112 Strawman v6" at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

4. Incorporate changes to the rule language presented in 14 CCR §§ 916.11.1 and 936.11.1 based upon language presented in the draft proposal entitled "Coho 2112 Strawman v6" dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to "Coho 2112 Strawman v6" at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the

proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The Board staff estimated that the proposed changes to the regulations could result in additional costs to the timberland owner. Those costs are associated with the design and implementation of monitoring programs. However, these costs can vary widely depending on numerous factors including, but not limited to the type of parameters targeted for monitoring, the frequency of monitoring, the types of equipment necessary and available to conduct the monitoring, and numerous other factors. Broad estimates for monitoring indicate that average yearly monitoring cost could range from \$30,000.00 to \$50,000.00, and may exceed \$100,000.00 depending on the extent of monitoring required, and the size of the area to be monitored. Considering the broad range of circumstances that would affect costs associated with the new requirements, the Board has determined that estimations of the potential cost for this regulation would be difficult to present in a format that would provide for meaningful public disclosure. However, the following estimations of costs associated with various portions of the proposed Rules are provided for consideration:

Any requirement for long-term effectiveness monitoring could cause timberland owners to avoid operations within a Class I WLPZ to avoid the cost of the monitoring, but resulting in cost for lost opportunity to harvest. If the timberland owner chooses to avoid operations within the WLPZ, they will be affected by cost associated with the reduction in LTSY, if they choose to operate within the WLPZ, they will be affected by the costs of effectiveness monitoring. A cost estimate for monitoring along ¼ to 1 mile of Class I could include the following:

For water temperature, one year of pre-harvest baseline data and one year of post-harvest data could cost about \$1,000 to \$3,000, including instruments, labor, data processing, and reporting, if done by an RPF. This cost could triple if conducted by a consulting firm, involving several experts.

Collection and analysis of sediment data is more costly than for temperature data. A short two- or three-year program may cost \$4,000 to \$10,000.

For no net loss of LWD or recruitment potential, that should just be counting down and standing-future LWD, before and after; the cost could be \$1,000 to \$2,000.

For no net increase in sediment, longer post-harvest monitoring would be needed, maybe 5 to 20 years. If the approved completion report equals the end of THP enforceability (except stocking and erosion maintenance), then the extent of “long term” may not be very long. Collection and analysis of sediment data is more costly than for temperature data. A short two- or three-year program may cost \$4,000 to \$10,000. A thorough long-term project over many years could run up to \$20,000 or more.

As indicated in a previous section of this Initial Statement of Reasons, the Board staff also considered that increased levels of protection to watershed resources are likely to generate benefits that offset the costs anticipated from the change in the rules. Many of these increases could only be measured through an implementation/effectiveness monitoring program. Information from the DFG indicates an economic output from sport fishing in the State of approximately \$7.1 billion in 1996. The sport fishing industry alone generated 74,000 jobs that year. Other studies show that the public spends hundreds of millions of dollars each year on sport fishing. Some economists in Oregon have estimated that households, on the average are willing to pay \$2.50 to \$7.00 per month to protect or restore salmon. Those figures show an estimated \$3-8.75 million dollars per month that the public would be willing to spend to secure healthy anadromous fish habitat. Other values potentially derived from increased watershed protection could be attributed to a savings in necessary flood control in flood prone areas. Some estimates of \$208 per acre have been suggested as savings in flood-damage and other costs on downstream firms and households. Cleaner streams and healthier riparian ecosystems could also contribute to recreation and tourism in other ways besides fishing. Although the benefits derived from the change in the regulations are as difficult to calculate as are the costs due to the range of variables, the Board staff believes that the majority of the costs will be offset over the long-term by the benefits derived from enhanced watershed management.

Considering the above cost estimates and the offsetting benefits derived from correct implementation of effective rules to protect the beneficial uses of water, the Board staff has determined that the proposed regulations are not likely to result in an adverse economic impact on businesses over the long-term.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed change to the language under 14 CCR §§ 916.11.1 and 936.11.1 is intended to provide specific direction to the Board, agencies, and the regulated public regarding monitoring processes designed to ensure application of appropriate, science-based regulations and measures pertaining to protection of anadromous salmonids. These new

sections of the FPRs propose to adopt language that is limited to only those watersheds where coho salmon are present. This change is specifically intended to provide clarity to landowners, plan preparers, and agencies in designing appropriate monitoring programs for determining where and when specific regulations should apply depending on the anadromous salmonid species present within a watershed and the condition of a watershed in terms of functional habitat for such species.

14 CCR §§ 923.9, 943.9, and 963.9

**Roads and Landings in Watersheds with
Threatened or Impaired Values**

**PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER
CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO
ADDRESS**

In 1995, the Board issued a report indicating that, when considered as a whole, the Board's rules were generally effective in protecting water quality, but the report identified outstanding issues related to winter period operations, Class III watercourse protection, and the restorable uses of water for fisheries (Final Report on the Implementation and Effectiveness of the Watercourse and Lake Protection Rules, 1995).

Additionally, a comprehensive review of the California Forest Practice Rules (FPRs), with regard to their adequacy for the protection of salmonid species, was prepared for the Board in 1999 (Report of the Scientific Review Panel [SRP report], 1999). Following an extensive review of the regulations, "The SRP concluded the FPRs, including their implementation (the 'THP process') do not ensure protection of anadromous salmonid populations" (Report of the Scientific Review Panel, 1999).

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

The Board recognized the substantial concerns raised by other agencies additionally charged with the protection of the State's valuable anadromous salmonid resources. The Board is aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping permitting processes. Considering these factors and the findings presented in previous reports, the Board

adopted changes to the FPRs under a previous rulemaking package (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). These rules were adopted to enhance protection of anadromous salmonids and their habitat. Specific objectives of these rules include protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. These regulations for the protection of anadromous salmonids will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG's coho salmon recovery strategy, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG's proposed procedural regulations rely in part upon the Board's proposed regulations that are the subject of this Initial Statement of Reasons. The proposed Board regulations set forth certain definitions and substantive measures in the FPRs that enable DFG to establish certain incidental take permitting procedures that meet the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits, including a certification process for providing incidental take permits under CESA for timber operations and activities that may result in take of coho salmon. While the previous rules for the "Protection for Threatened and Impaired Watersheds" addressed many of the factors that may affect coho salmon, DFG has indicated that the protection measures provided by these rules could not be relied upon to meet the issuance criteria for incidental take permits. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the FPA and the FPRs. The Board has worked with DFG and other agencies to develop this regulatory proposal to specifically provide an integrated approach to facilitate incidental take authorization in watersheds with coho salmon; however, the current rules for the "Protection for Threatened and Impaired Watersheds" conflict with the proposed rules for coho salmon in some cases due to their applicability to watersheds with any listed anadromous salmonids, including coho salmon. Without such an integrated approach, in addition to applying to CAL FIRE for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would result in additional cost to landowners proposing timber harvesting within the geographic range of coho salmon to obtain individual incidental take permits through the standard process set forth in Section 2081(b) of the Fish and Game Code and the associated cost of environmental review under CEQA. It would also result in additional cost to DFG for additional rulemaking to reestablish the substantive regulations and the associated environmental review required under CEQA.

SPECIFIC PURPOSE OF THE REGULATION

The proposed change to the language under 14 CCR §§ 923.9, 943.9, and 963.9 is intended to ensure continued application of appropriate regulations and measures pertaining to protection of anadromous salmonids, while providing an exception to ensure that any additional measures specific to coho salmon will not result in a conflict. This change is specifically intended to minimize conflict with existing regulations and to provide clarity to landowners, plan preparers, and agencies in determining where and when specific regulations apply depending on the anadromous salmonid species present within a watershed.

NECESSITY

In conformance with the definition of “Watersheds with Threatened or Impaired Values” (ref. 14 CCR § 895.1), the existing regulations under 14 CCR §§ 923.9, 943.9, and 963.9 currently apply to all planning watersheds where any species of listed anadromous salmonids are currently present or where their populations can be restored. Because the protection measures provided by these rules could not be relied upon by DFG to establish certain procedures for providing incidental take permits, namely a certification process, under CESA for timber operations and activities that may result in take of coho salmon that meets the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits, the Board in conjunction with DFG has developed additional regulations to specifically provide an integrated approach to facilitate incidental take permitting by DFG in watersheds with coho salmon. Since coho salmon are listed anadromous salmonids, this change proposed under 14 CCR §§ 923.9, 943.9, and 963.9 is necessary to provide clear, continued direction to the public, landowners, plan preparers, and agencies that there are separate and specific regulations that apply to watersheds with coho salmon. This is necessary for clarity in plan preparation, plan review, and enforcement.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD’S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not revise 14 CCR §§ 923.9, 943.9, and 963.9 to add the provision providing an exception for watersheds with coho salmon.

This alternative would not address the public problem this regulation is intended to address. Failure to adopt this proposed change to 14 CCR §§ 923.9, 943.9, and 963.9 would result in conflicting regulations in watersheds with coho salmon.

2. Incorporate changes to the rule language presented in 14 CCR §§ 923.9, 943.9, and 963.9 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

3. Incorporate changes to the rule language presented in 14 CCR §§ 923.9, 943.9, and 963.9 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

The Board staff estimated that there are no significant costs associated with this proposed revision to the rules. The Board has determined that the potential cost for this regulation would be minimal; consisting of minor printing costs to the State if any costs are incurred. This cost would not exceed the costs normally incurred each year by CAL FIRE to print and distribute rule language to field personnel. As no other costs have been associated with this proposed revision to the rules, the Board has determined that the potential for additional costs for this regulation would be minimal in the context of overall, long-term fisheries management. Therefore, the proposed regulations would not have a significant adverse economic impact on any business.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed change to the language under 14 CCR §§ 923.9, 943.9, and 963.9 is intended to ensure continued application of appropriate existing regulations and measures to ensure protection of anadromous salmonids and specifically, coho salmon.

14 CCR §§ 923.9.1 and 943.9.1

Minimization and Mitigation Measures for Roads and Landings In Watersheds with Coho Salmon

PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO ADDRESS

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

The Board recognized substantial concerns raised by DFG in regard to the protection of the coho salmon. The Board is aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping permitting processes. Previously, the Board adopted changes to the FPRs under a comprehensive rulemaking package for the protection of all listed anadromous salmonids (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). Specific objectives of these rules included protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. DFG has indicated that these regulations for the protection of anadromous salmonids are the "baseline" measures for the protection of coho salmon; however, these rules will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG's coho salmon recovery strategy, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. As such, DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG's proposed procedural regulations rely in part upon the Board's proposed regulations that are the subject of this Initial Statement of Reasons. The proposed Board regulations set forth certain definitions and substantive measures in the FPRs that enable DFG to establish certain incidental take permitting procedures that meet the permit issuance criteria under CESA (Fish and Game Code § 2081, subdivisions (b) and (c)) for incidental take permits, including a certification process for providing incidental take permits under CESA for timber operations and activities that may result in take of coho salmon. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the FPA and the FPRs. Without such an integrated approach, in addition to applying to CAL FIRE for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would involve separate environmental review processes and related costs to both the permit applicant and DFG.

SPECIFIC PURPOSE OF THE REGULATION

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (a) is intended to require the disclosure of the locations and specifications for road and landing abandonment or other measures to achieve no net increase in road density within the ownership within a watershed, so that the adequacy of the measures can be evaluated and perhaps compared for consistency with other proposals of adjacent landowners.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (b) is intended to establish appropriate standards for the width of logging roads, and to include appropriate specifications for road drainage in watersheds with threatened or impaired values.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (c) is intended to ensure that all watercourse crossings are constructed to allow passage of debris to prevent blockage by requiring crossings to be sized to accommodate the waters from a 100 year flood event.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (d) is intended to ensure a timber harvesting plan includes an analysis of each new permanent Class I culvert and provides the minimum specifications for these culverts for adequate protection of aquatic species. These specifications are intended to ensure unrestricted upstream and downstream movement of aquatic species at all life stages, as well as the unrestricted passage of water.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (e) is intended to provide information on the limiting factors associated with road construction, and on road designs, which will help to determine if the specified provisions for road construction are adequate to reduce the risk to water-related values. The rule is also intended to provide specifications related to road construction and the deposition of spoils, as well as requirements for re-contouring of slopes if fills are removed.

The proposed additional rule language under 4 CCR §§ 923.9.1 and 943.9.1, subsection (f) is intended to ensure that roads with excessive grades will be adequately drained.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (g) is intended to ensure that the proposed measures regarding the location, design, placement, and removal of drainage structures and erosion control features, and the rationale used to develop them are included in the plan and can be evaluated. The rule language is also intended to establish specific minimum requirements for drainage structures and erosion control features in watersheds with threatened or impaired values.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (h) is intended to ensure a timber harvesting plan provides the minimum specifications for permanent culverts installed within Class I watercourses adequate for the protection of aquatic species. These specifications are intended to ensure unrestricted upstream and downstream movement of aquatic species at all life stages, as well as the unrestricted passage of water.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (i) is intended to recognize that timberland owners may receive authorization for incidental take of coho salmon as a result of several processes that are independent of the Board's regulations. When incidental take has been authorized through one of these processes, it is the Board's intent through this subsection to allow operations to be conducted in conformance with the take authorization provisions rather than the operational provisions listed under 14 CCR §§ 923.9.1, and 943.9.1, 923.9.2, and 943.9.2. This new subsection proposes to adopt language that similar to existing language set to expire December 31, 2007 and that provides an exception to this section of the rules when an incidental take permit has been authorized.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (j) is intended to recognize that timberland owners may have entered into an agreement with DFG to incorporate specific measures in the plan that DFG has determined will avoid take of coho salmon. When such measures have been incorporated into a plan, it is the Board's intent through this subsection to allow operations to be conducted in conformance with those site-specific provisions rather than the standard operational provisions listed under 14 CCR §§ 923.9.1, 943.9.1, 923.9.2, and 943.9.2.

NECESSITY

In forested watersheds, most sediment production from human sources is associated with the road system. Reducing (or not increasing) a watershed's road density is an important way to achieve the goals of 14 CCR §§ 916.9, 936.9, and 956.9, subsection (a). Currently, there is no regulatory mechanism to achieve watershed-scale road planning and management, but road systems on an ownership within a watershed can be managed. The proposed additional rule language under 14 CCR §§ 923.9, 943.9, and 963.9, subsection (a) requires the disclosure of the locations and specifications for road and landing abandonment or other measures to achieve no net increase in road density within the ownership within a watershed. This is necessary so that the adequacy of the measures can be evaluated and perhaps compared for consistency with other proposals of adjacent landowners.

Construction of a road on a hillside often results in significant soil disturbance and displacement. The wider the road (and inside drainage ditch), the higher and less stable the excavated road cutbank and greater chance that excess soil will be generated. Inside ditches concentrate and divert runoff into areas not adapted to receiving the additional flows. The proposed additional rule language under 14 CCR §§ 923.9, 943.9, and 963.9, subsection (b) is necessary to minimize mass wasting potential and subsequent impacts to coho salmon habitat. New roads must be as narrow and hydrologically invisible as possible. Rolling dips are generally preferred because they do not need to be removed for road use and are not as easily damaged as water bars. Field observations indicate that rolling dips lose their effectiveness where road grades exceed 7 percent.

Inadequately designed, located, constructed, and maintained logging road watercourse crossings may block the passage of fish resulting in impacts due to restricted movement for cover, breeding, migration or other factors necessary for survival in forested watersheds. The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (c) is necessary to provide information to agencies and the public reviewing plans for evaluation; and to operators and inspectors for implementing the plan and for enforcement. This is necessary to ensure crossings minimize risks to water-related values, especially fish passage, resulting in significant adverse impacts to fish.

Inadequately designed new permanent Class I culverts may block the passage of fish resulting in impacts due to restricted movement for cover, breeding, migration or other factors necessary for survival in forested watersheds. These culverts must also allow unrestricted passage of water to prevent failure and subsequent delivery of sediment into the watercourse. The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (d) is necessary to provide information to agencies and the public reviewing plans for evaluation and enforcement to ensure crossings minimize risks to water-related values (especially fish passage), to ensure they do not fail resulting in significant adverse impacts to fish and other beneficial uses of water, and to ensure they remain functional throughout the life of the culvert.

Construction of a road on a hillside often results in significant soil disturbance and displacement. Fill and excavated roadbed failures are primary sources of sediment delivered from roads. Where new roads are to cross steep slopes, information is needed on the road designs to allow agencies and the public to review the proposal to ensure adequate protection to coho salmon from soil delivery to a watercourse. The proposed additional rule language under 14 CCR §§ 923.9, 943.9, and 963.9, subsection (e) is needed to provide such information. This subsection is also necessary to provide minimum road construction standards intended to minimize the potential for significant impacts to coho salmon.

The slope of the road surface influences the velocity of water traveling along the surface. Steeper roads result in faster flowing water. As the water travels farther along the road surface, it also increases in volume. The faster surface flows and greater volume increase the possibility of erosion and damage to the road's driving surface and edge. The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (f) is necessary to minimize damage to the road surface or prism that could result in significant amounts of sediment being delivered to a watercourse.

The Board has identified some factors that increase the risk to values associated with a healthy and functioning aquatic ecosystem that includes fisheries habitat. Where these factors exist, it is critical to provide enhanced protection measures to minimize the risk to these values resulting from failed culverts or the failure of other drainage structures or erosion control features. Such failure could contribute excessive amounts of sediment and debris downstream. The deposition of sediment into the watercourse can increase turbidity and aggradation of the watercourse channel resulting in direct and indirect impacts to fish and other aquatic resources. The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (g) is necessary to ensure that drainage structures and erosion control features are designed and installed in a manner that avoids in high risk situations.

Inadequately designed, located, constructed, and maintained tractor road watercourse crossings may block the passage of fish resulting in impacts due to restricted movement for cover, breeding, migration or other factors necessary for survival in forested watersheds. Crossing facilities must also allow unrestricted passage of water to prevent failure and subsequent delivery of sediment into the watercourse. The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (h) is necessary to provide information to agencies and the public reviewing plans for evaluation and enforcement to ensure crossings minimize risks to water-related values (especially fish passage) and to ensure they do not fail resulting in significant adverse impacts to fish and other beneficial uses of water.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (i) is necessary to avoid duplicative and potentially conflicting regulations for the protection of coho salmon being applied to timber operations when timberland owners have received authorization for incidental take of coho salmon as a result of a processes that is independent of the Board's regulations. Existing similar language that serves this

purpose is “interim” protection and is set to expire December 31, 2007. Therefore, the Board cannot rely upon the existing rules to meet DFG’s need to establish issuance criteria for incidental take applications for coho salmon.

The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1, subsection (j) is necessary to avoid duplicative and potentially conflicting regulations for the protection of coho salmon being applied to timber operations when timberland owners have entered into an agreement with DFG to incorporate specific measures in the plan that DFG has determined will avoid take of coho salmon.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD’S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not adopt the additional rule language under 14 CCR §§ 923.9.1 and 943.9.1 intended to ensure that the “baseline” standards currently provided by the rules for the “Protection for Threatened and Impaired Watersheds”, do not expire December 31, 2007.

This alternative would not address the public problem this regulation is intended to address. Should the Board choose not to adopt these regulations, DFG could not rely on them to meet the issuance criteria for incidental take applications for coho salmon and would be required to adopt separate regulations under their authority. This would result in additional cost to landowners proposing timber harvesting within the geographic range of coho salmon to obtain separate permits, as well as additional cost to State agencies responsible for the protection of the species as a result of additional rulemaking and additional environmental review required under CEQA and CESA.

2. Incorporate changes to the rule language presented in 14 CCR §§ 923.9.1 and 943.9.1 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

3. Incorporate changes to the rule language presented in 14 CCR §§ 923.9.1 and 943.9.1 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

Previously, the Board adopted changes to the FPRs under a comprehensive rulemaking package for the protection of all listed anadromous salmonids (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. DFG has indicated that these regulations for the protection of anadromous salmonids are the “baseline” measures for the protection of coho salmon; however, these rules will expire on December 31, 2007 absent further Board action. The proposed additional rule language under 14 CCR §§ 923.9.1 and 943.9.1 is intended to ensure that the “baseline” standards provided by the rules for the “Protection for Threatened and Impaired Watersheds”, with some modifications, do not expire. These new sections of the FPRs proposes to adopt language that is principally the same as the existing language without an expiration date, but is limited to only those watersheds where coho salmon are present. It is anticipated that the potential for economic impact to any business conducting timber operations in these areas will remain the same as operations under the existing rules.

The Board staff estimated that this regulation could potentially result in a significant adverse economic impact on businesses conducting timber operations in watersheds with coho salmon; however, the costs associated with the requirements imposed by the new regulations are difficult to estimate as they vary greatly. The Board staff estimated that this regulation could potentially result in long-term costs that would vary greatly depending on, but not limited to 1) the current condition of the watershed, (i.e. beneficial

uses of water, riparian habitat, or others), 2) the topographic and geologic features affecting harvesting practices, 3) the affected area under the control of the plan submitter, and 4) the long-term land management goals of the plan submitter. The protection measures currently provided in the rules and those that are proposed under this rulemaking package are anticipated to provide the means to secure restoration over a long period of time in most instances. Therefore, some cost will be incurred over time and will not significantly impact overall cost of land management. Considering the broad range of circumstances that would affect costs associated with the new requirements, the Board has determined that estimations of the potential cost for this regulation would be difficult to present in a format that would provide for meaningful public disclosure. However, the following estimations of costs associated with various portions of the proposed rules are provided for consideration:

The cost associated with describing existing Class I crossings, including RPF planning and writing time, could be as much as \$150 per crossing.

The cost associated with providing specifications for construction and use of new Class I crossings could be as much as \$200 per crossing considering the RPF's time.

In regard to maintaining or reducing the density of roads in a watershed, this regulation may not significantly impact landowners with established extensive road systems. These landowners would be faced with additional costs associated with road abandonment. Road removal project costs can vary widely depending on hillslope angle, road width, the types of treatment, equipment and manual labor, and replanting costs. Road removal costs could average about \$2,000.00 per mile. Basic road decompaction and re-seeding costs about \$500.00 per mile; ripping, decompaction, sidecast removal, and stream excavation (crossing removal) costs approximately \$2,000.00 per mile; while the price for full recountouring with hydromulching and re-vegetation approaches \$15,000.00 per mile. One benefit of road removal is savings in road maintenance, estimated at \$300.00 to \$500.00 per mile annually.

Landowners that are just starting to develop a road system on their property within a watershed may be forced to consider helicopter logging. In those cases, the cost of this rule could be very high, ranging between \$150 to \$200 per mbf.

For operations on slopes greater than 50%, this could require the work or review of work by a Certified Engineering Geologist (CEG). This could cost from \$500 to \$4,000 per plan, depending on complexity and whether the geologist was an employee of the landowner or whether the landowner would have to hire a consultant. Additionally, excavator/end-haul road construction could range from \$2,000 to \$5,000 per mile higher than dozer/side-cast construction. However, current operations are typically planned to avoid 50% slopes with new road construction. Therefore, the cost per plan for full bench construction could be less than \$5,000. This is also likely true for those roads with grades in excess of 20% for distances greater than 500 feet. Again, the average plan maybe less than \$5,000.

In regard to areas with problem crossings, this is very site specific. The additional costs to replace, armor, or remove marginal crossings could be in excess of tens of thousands of dollars on a single plan. It is difficult to estimate how often this rule would be applied in the state.

Redesigning culverts on Class I watercourses to allow for unrestricted passage of fish and water may include culvert designs that collect bedload or include specifications that the culvert be as wide as the channel. This may lead to use of non-round culverts (e.g. elliptical), or to more use of bridges and arches on large streams. These structures are more expensive to buy and install than round pipes. Stream cross sections tend to be wider than they are deep, so a round pipe sized for discharge capacity alone may not allow unrestricted passage of fish and water due to blockage. This change in the rules could result in an average cost increase of 15% per new Class I crossing, or \$500 to \$5,000 per plan.

If the culvert is imbedded in the natural stream bed to facilitate fish passage, this could reduce the cross sectional area of the culvert by a little over 14%. Getting this 14% back requires increasing the pipe diameter by about 7% (although 20% of this additional diameter would also have to be buried). These increases are similar in scale to the effect of going from 50-year to 100-year sizing, but are cumulative. There could be an additional cost to imbed Class I culverts at between \$300 and \$1,500 per plan, when you average many plans with no culverted Class I crossings, with a few with rather expensive crossings. In order to prevent headcutting that could result from dropping the pipe, the landowner may have to use riprap, which may be stairstepped to allow fish passage. The average crossing may need 10 tons at \$25 per ton delivered, plus \$250 for placement. This would result in a cost of \$500. If this cost were averaged over many plans without new Class I crossings, it may only be \$100 per plan.

The restrictions on operations during wet periods could result in additional costs to the LTO due to stopping-starting, waiting, and extended winter shutdown periods. These costs could be as much as \$2,000 to \$10,000 per plan. Putting rock on roads and landings to prevent sediment generation might cost \$5,000 to \$20,000 per plan. The wet road provisions could also result in delays, or a requirement for road rocking. This could result in an additional cost of \$500 to \$5,000 per plan.

The requirements pertaining to the installation of drainage facilities could be fairly unpredictable because they require waterbars before even unpredicted rain. This may cause the operator to expend a few extra hours of tractor time every week at \$75 per hour. This could result in an additional cost of \$500 for a small tractor plan to \$3,000 for a large one.

To ensure a stable operating road surface, soil stabilization measures might be employed that could result in the use of a surface coating with oil or some similar material that won't wash away in the winter, and will last through the 3-year erosion maintenance period. Rocking could cost \$20,000 per mile. These requirements could result in a huge range of costs from \$0 to \$50,000 per plan (although a lot of existing WLPZ road is

already rocked). The oil or other super-stabilization could add half of what the rock cost (i.e. up to \$10,000 per plan).

In regard to erosion remediation, the work required would be very site specific. However, there could be significant RPF and consulting CEG time, as well as operational costs. Considering the development of the plan, and implementation costs, these requirements could result in additional costs of up to \$100,000, if included with a large plan.

In regard to the requirement for 3-year erosion maintenance; if one year is normal, then additional costs could be from \$500 for a few inspections to \$5,000+ if things need to be fixed.

Considering the above cost estimates, the Board staff has determined that the proposed regulations may have an adverse economic impact on businesses, and such impact may be significant.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed change to the language under 14 CCR §§ 923.9.1 and 943.9.1 is intended to ensure continued application of appropriate regulations and measures pertaining to protection of anadromous salmonids. These new sections of the FPRs propose to adopt language that is principally the same as the existing language without an expiration date, but are limited to only those watersheds where coho salmon are present. This change is specifically intended to minimize conflict with existing regulations and to provide clarity to landowners, plan preparers, and agencies in determining where and when specific regulations apply depending on the anadromous salmonid species present within a watershed.

14 CCR §§ 923.9.2 and 943.9.2

Additional Measures to Facilitate Incidental Take Authorization in Watersheds with Coho Salmon

PUBLIC PROBLEM, ADMINISTRATIVE REQUIREMENT, OR OTHER CONDITION OR CIRCUMSTANCE THE REGULATION IS INTENDED TO ADDRESS

In April 2001 the State Fish and Game Commission accepted a petition for consideration to list Coho salmon as endangered north of San Francisco Bay. In August 2002, the State Fish and Game Commission found that coho salmon north of San Francisco to Punta Gorda warranted listing as endangered and that coho salmon from Punta Gorda to the Oregon border warranted listing as threatened. The rulemaking for these listings were delayed pursuant to Fish and Game Code section 2114 pending the DFG's preparation of a coho salmon recovery strategy. The State Fish and Game Commission approved the coho salmon recovery strategy in February 2004, including policies to guide the issuance

of incidental take authorizations for timber operations and activities under CESA. In March 2005 coho salmon were listed under CESA as endangered from San Francisco to Punta Gorda and threatened north of Punta Gorda to the Oregon border.

The Board recognized the substantial concerns raised by other agencies additionally charged with the protection of the State's valuable anadromous salmonid resources. The Board is also extremely aware of the need to protect listed species that may be impacted by practices that are regulated under the Board's purview. Furthermore, the Board recognized the potential for economic impacts to timberland owners and others that could be imposed from certain types of restrictions, requirements, or overlapping permitting processes. Considering these factors, the Board adopted changes to the FPRs under a previous rulemaking package (Protection for Threatened and Impaired Watersheds, 2000, OAL File No. Z00-0118-14). These rules were adopted to enhance protection of anadromous salmonids and their habitat. Specific objectives of these rules include protection of instream spawning habitat, migratory routes, stream flow, large woody debris, vegetative canopy, shade, and daily and seasonal water temperatures. In adopting these rules, the Board chose to establish a specific date the rule changes would expire. In subsequent rulemaking actions, the Board extended these regulations in 2001, 2002, 2003, 2004, and 2006. These regulations for the protection of anadromous salmonids will expire on December 31, 2007 absent further Board action.

As previously noted, in February 2004, the State Fish and Game Commission approved DFG's coho salmon recovery strategy, including policies to guide the issuance of incidental take authorizations for timber operations and activities under CESA. As such, pursuant to Fish and Game Code 2112, DFG is required to develop and adopt rules and guidelines to implement those policies. As such, DFG has developed proposed procedural regulations that implement these policies, which are the subject of a separate Initial Statement of Reasons. The DFG's proposed procedural regulations in part rely upon the Board's proposed regulations that are the subject of this Initial Statement of Reasons. Currently, there is not a regulatory procedure for the issuance of incidental take permits for coho salmon that is integrated with the FPA and the FPRs. Without such an integrated approach, in addition to applying to the Department of Forestry and Fire Protection (CDF) for approval of timber harvesting plans, timberland owners would have to engage in a lengthy, separate process for obtaining incidental take permits for coho salmon from DFG for any timber operations and activities that would result in take of the species. This would involve separate environmental review processes and related costs to both the permit applicant and DFG.

SPECIFIC PURPOSE OF THE REGULATION

The proposed additional rule language under 14 CCR §§ 923.9.2 and 943.9.2 is intended to provide enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining an incidental take permit from DFG by certification is used.

NECESSITY

Watersheds with coho salmon frequently include commercial timberlands. In some cases, timber harvesting is the dominant, or sole, economic activity. Historic timber operations adversely affected aquatic habitat used by coho salmon and these watersheds have not completely recovered from legacy impacts. The Z'berg-Nejedly Forest Practice Act of 1973 substantially changed timber harvesting in California and diminished impacts from regulated timber harvesting on aquatic habitat for coho salmon and other aquatic species. Incremental improvements in the FPRs, active oversight by review team agencies and the public, and a growing ethic of stewardship by timberland owners has contributed to a landscape which is recovering from legacy impacts. Modern timber operations have far less impact on aquatic habitat than past practices. However, timber operations inevitably disturb the footprint of the plan area, return habitat to an earlier successional stage and create the potential for sediment delivery from roads appurtenant to the plan area. There are three primary adverse consequences of timber harvesting for coho salmon habitat. These are: delivery of sediment to the watercourse, reduction in shade canopy for the watercourse and reduction in the rate and quality of large wood recruitment to the watercourse.

The CESA, among other requirements, specifies that a project shall fully mitigate the impacts of any taking. Measures included in §§ 916.9.1, 936.9.1, 916.9.2, 936.9.2, 923.9.1, 943.9.1, 923.9.2, and 943.9.2 are intended and designed to cumulatively fully mitigate impacts of taking coho salmon. Permanent retention of the Threatened and Impaired Watershed rules in watersheds with coho salmon is an essential element of this comprehensive proposal to meet issuance criteria under the CESA. Without permanent retention of the Threatened and Impaired Watershed Rules in these watersheds it would not be possible to ensure that a standard set of mitigation enhancements could be applied at a landowner's discretion when take is determined likely by the DFG and meet the full mitigation standard. Taken as a whole, these measures are intended to minimize and fully mitigate the impact of timber operations on aquatic habitat, accelerate short-term recovery of riparian and upland vegetation, which may contribute to the long-term recovery of habitat elements that provide functional and sustainable habitat for coho salmon.

In most cases, "take" of coho salmon from approved timber operations is not likely to result in the mortality of numerous individual eggs or fish. Activities within the stream channel (e.g. construction or replacement of crossings, bank stabilization) or sediment delivered to spawning habitat are the most probable mechanisms for take. In the common instance where returning adult salmon are few in number, the take of even a few individuals can be a substantial impact on the population. With the Threatened and Impaired Rules as a baseline requirement for all plans in the watershed, application of the additional measures in §§ 916.9.2, 936.9.2, 923.9.1, 943.9.1, 923.9.2, and 943.9.2 have been determined by the DFG to meet the minimization and full mitigation permit issuance criterion under CESA.

The proposed additional rule language under 14 CCR §§ 923.9.2 and 943.9.2, subsection (c) is necessary to reduce the generation of sediment from roads where it may be

delivered to coho salmon habitat. Based upon general guidance provided in the *Handbook for Forest and Ranch Roads*, detailed measures for specific site conditions were developed. In this application “site specific” refers to familiar components of roads developed for commercial timberlands. Examples include but are not limited to: watercourse crossings, periods for road use, road cuts and fills, segments within Class I watercourse and lake protection zones, landings, road surfaces, Where flexibility is provided for the Registered Professional Forester to propose alternative measures, written concurrence from the DFG is required to assure that the risk for delivery of sediment to coho salmon habitat is no greater than would result from the specified default measures.

ALTERNATIVES TO THE REGULATION CONSIDERED BY THE BOARD AND THE BOARD’S REASONS FOR REJECTING THOSE ALTERNATIVES

1. Do not adopt the additional rule language under 14 CCR §§ 923.9.2 and 943.9.2 intended to provide enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining an incidental take permit by certification for coho salmon from DFG for any timber operations and activities that would result in take of the species.

This alternative would not address the public problem this regulation is intended to address. Should the Board choose not to adopt these regulations, DFG could not rely on them for appropriate application of the FPRs necessary to enable DFG to establish certain procedures for providing incidental take permits, namely a certification process, for timber operations and activities that may result in take of coho salmon that meet the issuance criteria for incidental take permits under CESA. This would require DFG to adopt separate regulations under their authority to reestablish these definitions either now or in the future should the Board choose to allow them to expire. This would result in confusion and additional cost to landowners proposing timber harvesting within the geographic range of coho salmon. Landowners would not know at the time of plan preparation whether or not the Board’s rules would suffice to meet the issuance criteria for incidental take permits and may have to engage in a lengthy, separate permitting process with DFG under CESA, involving a separate environmental review process under the California Environmental Quality Act (CEQA). It would also result in additional cost to State agencies responsible for the protection of the species for additional rulemaking and associated additional environmental review under CEQA.

2. Apply to all watersheds with threatened or impaired values the additional rule language under 14 CCR §§ 923.9.2 and 943.9.2 intended to provide enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining an incidental take permit by certification for coho salmon from DFG for any timber operations and activities that would result in take of the species.

This alternative exceeds the scope of the public problem this regulation is intended to address. This would result in additional cost to landowners proposing timber harvesting within the geographic range of any listed anadromous salmonid.

3. Incorporate changes to the rule language presented in 14 CCR §§ 923.9.2 and 943.9.2 based upon comments regarding a previous draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations. Reasonable alternatives were incorporated into the proposed rule language presented in this notice of rulemaking action. No other reasonable alternatives were presented in the comments that the Board considered to be necessary, considered to be more effective in carrying out the purposes for which the regulation is proposed, or that the Board would consider to be as effective and less burdensome to the affected private persons than the proposed regulatory action.

4. Incorporate changes to the rule language presented in 14 CCR §§ 923.9.2 and 943.9.2 based upon language presented in the draft proposal entitled “Coho 2112 Strawman v6” dated 2/28/07, which was circulated by the Board prior to issuance of this public notice of rulemaking action.

The Board received written and oral public comments related to “Coho 2112 Strawman v6” at a workshop held by the Board on March 26, 2007. The Board considered these comments in drafting the proposed regulations and incorporated changes considered reasonable.

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to affected small businesses than the proposed regulatory action. No other alternatives to these proposed regulations were considered by the Board at this time.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT ON ANY BUSINESS

This proposed regulatory action facilitates an expedited certification process for obtaining incidental take permits from DFG for timber operations that may result in the take of coho salmon. The certification process would authorize the take of coho salmon, a listed species under CESA. The proposed regulations would minimize and fully mitigate impacts of the timber harvesting activities on coho salmon. Therefore, to the extent businesses are engaged in activities that will take coho salmon and choose to obtain incidental take permits through the certification process, the proposed regulatory action may result in adverse economic impacts directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

Where DFG authorizes take of coho salmon that is incidental to an otherwise lawful activity, impacts of the taking must be minimized and fully mitigated, and any such mitigation must be monitored for implementation and effectiveness under CESA. Permitting under CESA for incidental take of coho salmon would result in some increased costs when compared to the status quo under the current FPRs, which includes the federal take prohibition under the ESA. However, the magnitude of such effects is speculative. There are a number of ways that the magnitude can be estimated, but the results will vary depending on the methodology and assumptions involved. Three examples of differing perspectives or methodologies are provided below. Following a review of the methodologies is a conclusion as to the estimates of economic impact.

The first example is based on the perspective that because the majority of such activities are already subject to federal take prohibitions under the federal ESA, they have therefore incurred economic consequences as a result since the federal listings (1996 and 1997). As such, protection provided under CESA should not result in a significant increase in costs or burdens to California businesses. This is particularly true where consistency determinations pursuant to Fish and Game Code § 2080.1 is utilized to obviate the requirement for an incidental take permit under CESA.

The second example is based upon a portion of the analysis of potential costs of recovery of coho salmon relative to timber operations and activities, which were identified in Section I.13.1.2 of the “Recovery Strategy for California Coho Salmon (*Oncorhynchus kisutch*), Report to the California Fish and Game Commission (February 2004).” A currently unquantifiable fraction of these potential costs can potentially be attributed to the listing of the species, as opposed to recovery, if practices result in take of coho salmon under CESA and the mitigation measures that were analyzed are utilized either by regulation or through individual timber harvest review processes to address take of coho salmon. The costs of proposed policies to guide the issuance of incidental take authorizations were estimated in the Recovery Strategy for Coho Salmon to be \$151-373 million over a minimum of 25 years, or stated another way, a reduction in timberland values by an estimated 2.8 to 6.9 percent (timberlands are valued at \$1,400 per acre on average), which is a reduction between \$39 and \$97 per acre. However, in reviewing the analysis, the DFG identified some errors in the analysis. As a result of these errors, the

estimate reflected in the Recovery Strategy for Coho Salmon is too high. A more accurate estimate, based on information to date, is \$204-252 million. This is equivalent to a range of 3.8 to 4.7 percent, which represents a reduction in timberland values (which are valued at \$1400/acre on average) of between \$53 and \$66 per acre. These impacts would be spread over at least 40 years. In addition, these estimates assume that all of the recommended timberland management provisions would be applied to every timber harvesting plan and that none of the measures are already part of the plan. The DFG does not anticipate this will be the case because the proposed policies would be recommended as necessary on a site-specific basis when take of the species would occur or if the CAL FIRE were to require them in order to mitigate significant adverse effects on the environment pursuant to the California Environmental Quality Act. Thus, costs would likely be only a fraction of the revised estimates described above.

The third example uses a methodology that yields yet a different estimate of costs regarding timber management activities. This methodology is based on three factors, 1) the regulation's application over at least two to three decades, 2) its applicability to many of the watersheds from San Francisco to the Oregon border, and 3) the estimated level of noncompliance with existing regulations (such as the federal listing, water law, etc.). The state listing of coho salmon south of San Francisco in 1995 resulted in increased costs to timber companies operating within known coho salmon habitat areas. These costs are associated with implementation of mitigation measures for coho salmon and increased regulation. The DFG, in cooperation with CAL FIRE, developed a programmatic approach through Fish and Game Code § 2090 (which has since been repealed) to minimize the regulatory costs to businesses. The mitigations, which are listed in "Coho Salmon Biological Opinion and 2090 Agreement for Timber Harvest Plans South of San Francisco Bay (May 7, 1996)" are nearly identical to many of the requirements adopted four years later under the Forest Practice Rules, specifically the Threatened and Impaired Watershed Rules ("Protection for Threatened and Impaired Watersheds, 2000", 14 CCR §§ 895, 895.1, 898, 898.2, 914.8, 934.8, 954.8, 916, 936, 956, 916.2, 936.2, 956.2, 916.9, 936.9, 956.9, 916.11, 936.11, 956.11, 916.12, 936.12, 956.12, 923.3, 943.3, 963.3, 923.9, 943.9 and 963.9. As a result, the standard mitigations for coho salmon previously developed for the 1995 listing of coho salmon south of San Francisco have been universally applied north of San Francisco since 2000 (that is, two years prior to the finding that coho salmon north of San Francisco warranted listing) through the FPRs. Only where additional protective measures are proposed by the Board in its proposed action, and required by the certification process set forth in this proposed action, would there be increased costs as a result of the mitigation measures. Therefore, the annual costs to timberland owners north of San Francisco are estimated to be \$180,000/year). According to 2004 data from the State Board of Equalization regarding timber harvest volumes, the total timber harvest volume within the range of coho salmon south of San Francisco is less than 1.7% of the timber harvest volume within the range of coho salmon north of San Francisco. Therefore, the estimated costs to timber operators south of San Francisco are estimated to be roughly 1.7% of \$180,000/year, which is \$3,000/year. Therefore the annual costs to timber operators statewide are estimated to be \$183,000/year or \$5.49 million over 30 years.

Table 2: Estimated cost to timber management.

	Non-Federal Forested lands		Coho Streams				
	Total Streams	Coho Streams					
COUNTY	miles	miles	Percent	THPs ¹	THPs ² ITP	2081 ³	Mitigation ⁴
DEL NORTE	332.49	97.92	29.45%	30	4	\$4,417	\$30,922
HUMBOLDT	3,048.90	347.35	11.39%	110	6	\$6,266	\$43,862
MENDOCINO	3,441.30	609.99	17.73%	100	9	\$8,863	\$62,039
SISKIYOU	1,347.15	121.90	9.05%	30	1	\$1,357	\$9,501
SONOMA	1,060.95	72.20	6.81%	20	1	\$681	\$4,764
TRINITY	866.83	62.16	7.17%	10	1	\$1,000	\$7,000
Grand Total	10,260.83	1,311.52	12.78%	300	23	\$22,584	\$158,089
							\$180,673 ⁵

¹=average number of individual THPs/county/year (excluding HCPs and NCCPs) within the range of coho salmon

²=estimated number of individual THPs needing an incidental take permit/year; based on staff interviews

³=estimated cost for incidental take permits for county (F&G Code section 2081)

⁴=estimated increase in county, THP mitigation costs required by 2081

⁵=total cost of incidental take permits and associated mitigation for coho salmon per year

Additionally, DFG modeled the effects of applying the prescriptive mitigation measures specified in the separate regulatory proposal of the Board to evaluate the impacts. This effort relied upon 61 randomly selected THPs from 2002 within the geographic range of coho salmon. Using geographic information system technology, DFG was able to estimate the extent of expanded Class II Watercourse and Lake Protection Zones (WLPZ) and additional retention for commercial tree species in Class III Channel Zones. DFG provided the following results:

Sample Size	61 THPs
Average THP size	298.4 acres
Average length Class I/THP	2,358'
Average Length Class II/THP \geq 1st order	2,114'
Average length Class III/THP	6,242'
Ave increase in Class II WLPZ/THP ³	4.6 acre (1.6%)
Average acreage of Class III channel zone/THP ⁴	1.43 acre (0.5%)

The net effect, on average for any THP where DFG determines take is likely, when the landowner elects to follow these prescriptions, is that an additional 2.1% of the THP area would be included in Class II WLPZ area or the Class III channel zone. Subject to canopy retention requirements, some trees in the Class II WLPZ would be available for harvest. For THPs in the Southern Subdistrict of the Coast Forest District and Nonindustrial Timber Management Plans, there would be additional canopy retention, but no additional Class II WLPZ acreage removed from harvesting. Additional tree retention will be required for Class II inner gorges and headwall swales for which no data are

³ The estimate does not include Class II watercourses which are not mapped on U. S. Geological Survey topographic maps because the additional prescriptions would not apply.

⁴ Assumes a channel zone width of 10'

available to analyze the consequences. Additional measures for road management will increase costs but no data exist to quantify the impact. Further, there is considerable potential for project specific flexibility which may ameliorate some costs.

In the five year period from 1999 through 2003 there were 2,102 THPs in the eight counties with both timber harvesting and coho salmon. These counties are Del Norte, Humboldt, Trinity, Siskiyou, Santa Cruz, San Mateo, Sonoma and Mendocino. Of these, DFG estimated 1,585 had one or more harvest units where coho salmon are known to be present. There is currently no analysis which describes proximity of these THPs to coho salmon habitat. DFG currently reviews nearly every THP within watersheds with coho salmon as part of the THP review process and specifically to evaluate the likelihood that take of coho salmon will result. Since coho salmon were listed by the State in March of 2005, DFG has not yet determined that take is likely for any individual THP. This retrospective is not a reliable indication that future project reviews will reach the same determination in every case. It is likely that DFG will make determinations of take in a small fraction of THPs and some landowners may determine it in their interest to obtain an incidental take permit even without a DFG determination. Based upon the above it is reasonable to estimate that fewer than 10% of THPs in the future will obtain an incidental take permit for coho salmon from DFG.

POSSIBLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS AND MITIGATIONS

The Board has not identified any adverse environmental effects from the proposed action. The proposed action establishes enhancements to the FPRs to meet the requirements under CESA for minimization and full mitigation where the optional process of obtaining incidental take permits through a certification process from DFG. The proposed action itself does not authorize incidental take of coho salmon, although it would facilitate DFG's establishment of a certification process for issuing incidental take permits. The proposed action would establish substantive requirements that are intended to minimize and fully mitigate impacts of the timber harvesting activities on coho salmon under Fish and Game Code section 2081, subdivisions (b). However, to the extent it can be argued that the proposed action could result in the incidental take of coho salmon from timber operations and activities, the proposed action includes measures that would minimize and fully mitigate those impacts, and thereby avoid jeopardy to the species. As a result, any significant adverse environmental effects would be mitigated to a level of less than significant. This is supported by an Initial Study that was prepared for the proposed action. The Initial Study is incorporated herein by this reference.

TECHNICAL, THEORETICAL, AND/OR EMPIRICAL STUDY, REPORTS, OR DOCUMENTS

The Board of Forestry and Fire Protection consulted the following listed information and/or publications as referenced in this *Initial Statement of Reasons*. The information was provided by the California State Water Resources Control Board, the California Regional Water Quality Control Boards, the California Department of Fish and Game,

the California Department of Forestry and Fire Protection, the Monitoring Study Group of the California State Board of Forestry and Fire Protection, the Board staff, and other sources to address potential adverse impacts to watersheds with coho salmon (available upon request). Unless otherwise noted in this *Initial Statement of Reasons*, the Board did not rely on any other technical, theoretical, or empirical studies, reports or documents in proposing the adoption of this regulation.

1. Letter to Mr. Robert Kerstiens, Chairman, Board of Forestry and Fire Protection from California Environmental Protection Agency and the Resources Agency, with proposed rules, June 30, 1999.
2. Interim Report to the California State Board of Forestry and Fire Protection, Hillslope Monitoring Program: Monitoring Results from 1996 through 1998 (June, 1999)
3. Modified Completion Report Monitoring Program: Implementation and Effectiveness of Forest Practice Rules Related to Water Quality Protection, Monitoring Results from 2001 through 2004 – Brandow, Cafferata, and Munn, July 2006
4. Explanation and Justification for Proposed Forest Practice Rules Addressing Watersheds with Threatened or Impaired Values
5. Coho Salmon Biological Opinion and 2090 Agreement for Timber Harvest Plans South of San Francisco Bay, May 7, 1996.
6. Coho Salmon (*Oncorhynchus kisutch*) Considerations for Timber Harvests under the California Forest Practice Rules, April 29, 1997.
7. Special Order to Provide Incidental Take of Coho Salmon South of San Francisco Bay during Candidacy Period, May 9, 1994.
8. Draft Rule Language, Coho Considerations, 1999.
9. Proposed Forest Practice Rule Modifications; affected sections, May 10, 1999.
10. Public Resources Code §§ 4551, 4513, 4514.3, 4551.5, 4551.7, 4552, 4553, 4562.5, 4562.7, 4562.9, 4582, and 4584 *et seq.*
11. Barclays Official California Code of Regulations
12. Letter to the State Water Resources Control Board from USEPA, May 12, 1999.
13. 1998 California 303(d) List and TMDL Priority Schedule, May 12, 1999.
14. Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska; Lee H. MacDonald, Smart Alan, W., and Wissmar, Robert C., 1991.
15. California's Nonpoint Source Pollution Control Program, Public Release Draft including cover letter, July 2, 1999.
16. Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat, Scientific Review Panel, June 1999.
17. TMDLs-What are they and how do they work?, NCRWQCB.
18. Current Treatment of Slope Stability Issues in the THP Process, Report to the Board of Forestry, William C. Stewart, February 1999.
19. Note 45-Guidelines for Geologic Reports for Timber Harvesting, California Department of Conservation, Division of Mines and Geology, Rev. 7/97.
20. Note 50-Factors Affecting Landslides in Forested Terrain, California Department of Conservation, Division of Mines and Geology, Rev. 6/97.

21. Matrix of Riparian and Watercourse Prescriptions, July 1999.
22. Estimated Costs Associated with Proposed New Forest Practice Rules, CDF; June, 1999.
23. Sensitive Watersheds with 1% or More Private Forest Land, Map, FRAP.
24. 303D TMDL Priority Watersheds and River Reaches, Map, USDA.
25. Final Environmental Document Analyzing The California Fish And Game Commission's Special Order Relating To Incidental Take Of Coho Salmon North Of San Francisco During The Candidacy Period Sch No. 2001062016 State Of California. Resources Agency; California Department of Fish And Game. December 2001
26. Status Review of California Coho Salmon North of San Francisco Report to the California Fish and Game Commission. State of California, The Resources Agency, California Department of Fish and Game April 2002
27. The Fish and Game Commission-approved California Department of Fish and Game Recovery Strategy for California Coho Salmon (*Oncorhynchus kisutch*) (February 2004)
28. Coho Salmon Regulations for Timber Harvesting Plans: Report to the Board of Forestry and Fire Protection - Department of Forestry and Fire Protection and the Department of Fish and Game, January 2007
29. Protection for Threatened and Impaired Watersheds - 2000, OAL File No. Z00-0118-14
30. Watershed Protection Extension - 2000, OAL File No. Z00-1107-03
31. Coho 2112 Strawman v6, February 28, 2007
32. Public Comment Letters from March 26, 2007 Workshop Conducted by the Executive Officer of the Board of Forestry and Fire Protection
 - Meeting Announcement and Agenda
 - Letter from Timber Products Company, March 21, 2007
 - Letter from Campbell Timber Management, March 21, 2007
 - Letter from Central Coast Foresters, March 21, 2007
 - Letter from California Licensed Foresters Association, March 21, 2007
 - Letter from California Forestry Association, March 20, 2007
 - Letter from Big Creek Lumber Co., March 21, 2007
 - Letter From California Trout, March 21, 2007
 - Letter from Sierra Pacific Industries, March 20, 2007
 - Letter from Paul Mason (Sierra Club California), March 21, 2007
33. Joint Policy Statement on Pacific Salmon and Anadromous Trout, California State Board of Forestry and Fire Protection and the California Fish and Game Commission, August 2001
34. Matrix Description and CDF Matrix of Salmonid Protection Measures for Discussion at the Board of Forestry and Fire Protection Special Meeting, August 23, 2006
35. Map of Northern California Planning Watersheds depicting Coho Range
36. Map of Northern California Planning Watersheds depicting Habitat Conservation Strategies in Planning Watersheds with Coho Fish Present
37. Map of Pacific Salmon & Steelhead Recovery Domains in California
38. Map of Disconnected Habitat in the SONCC Coho ESU, July 2, 2003

39. Annotated Bibliography: Information and Studies Relevant to Interim California Forest Practices Rules for Watersheds with Threatened or Impaired Values, CH2M Hill, Inc., March 2006
40. Overview and Background of Threatened or Impaired Watershed Rules, California Department of Forestry and Fire Protection, April 3, 2006
41. Letter from the California Legislature Senate Committee on Natural Resources to Ryan Brod~~rick~~^{rick}, Director, Department of Fish and Game, Senator Sheila Kuehl, July 6, 2006
42. Initial Study - Coho Salmon Incidental Take Assistance, 2007, California State Board Forestry and Fire Protection
43. Proposed Regulations: California Code of Regulations, Title 14, Subdivision 3, Chapter 6. Regulations for Implementation of the California Endangered Species Act; Article 3. Incidental Take Permit Guidelines for Timber Operations §§ 787, 787.1, 787.2, 787.3, 787.4, 787.5, 787.6, 787.7, 787.8, and 787.9

Pursuant to Government Code § 11346.2(b)(6): In order to avoid unnecessary duplication or conflicts with federal regulations contained in the Code of Federal Regulations addressing the same issues as those addressed under the proposed regulation revisions listed in this *Statement of Reasons*; the Board has directed the staff to review the Code of Federal Regulations. The Board staff determined that no unnecessary duplication or conflict exists.

PROPOSED TEXT

The proposed revisions or additions to the existing rule language is represented in the following manner:

UNDERLINE indicates an addition to the California Code of Regulations, and

~~STRIKETHROUGH~~ indicates a deletion from the California Code of Regulations.

All other text is existing rule language.